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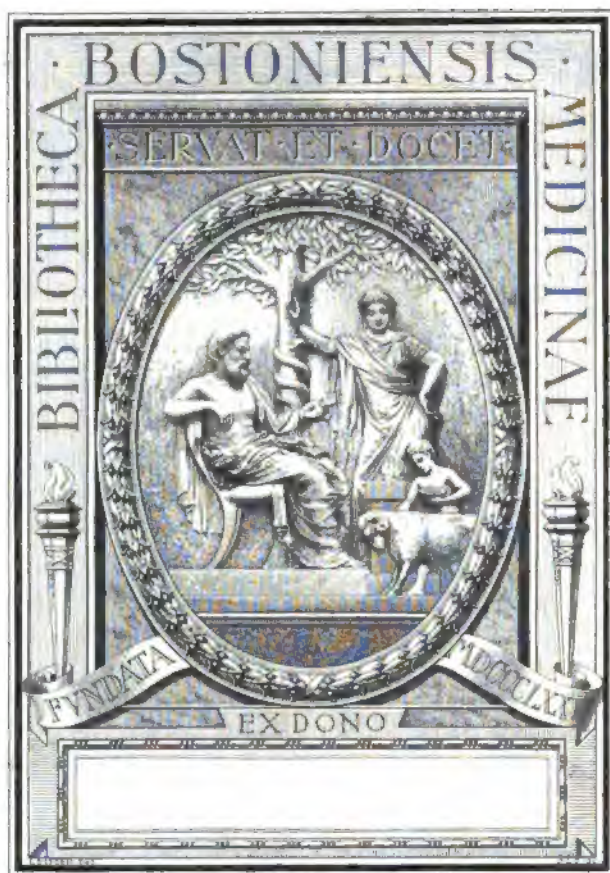
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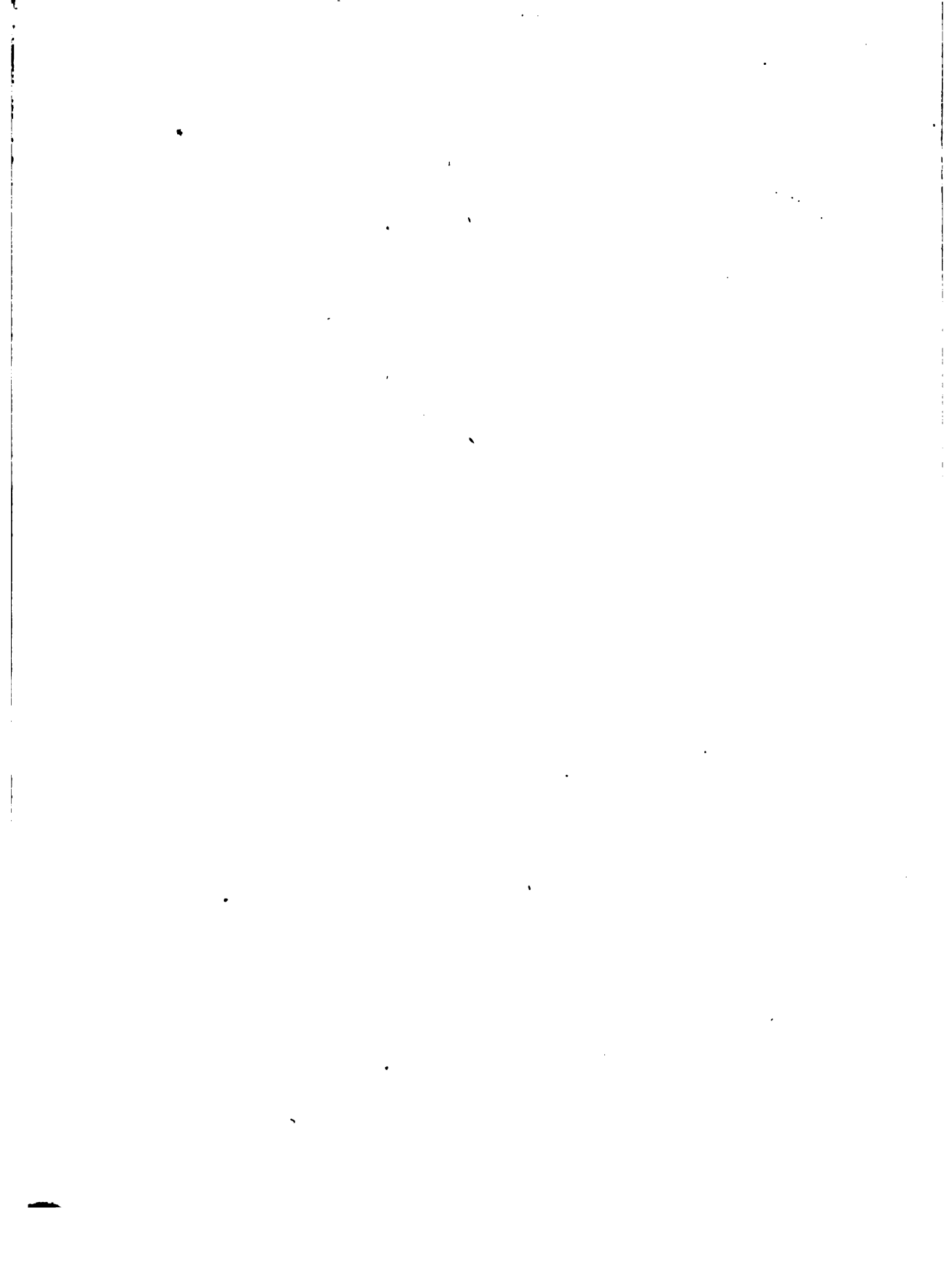
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THE AUSTRALASIAN MEDICAL GAZETTE

The Journal of the Australasian Branches of the
British Medical Association.

EDITED FOR THE PROPRIETORS BY

GEORGE E. RENNIE, M.D., F.R.C.P. (Lond.),
Sydney, N.S.W.

And for the other Branches of the British Medical Association by

HENRY LAURIE, M.B., MELBOURNE.

H. S. NEWLAND, M.B., F.R.C.S. (Eng.), ADELAIDE, S.A.

_____, QUEENSLAND.

A. E. MARTIN, M.D., PERTH, W.A.

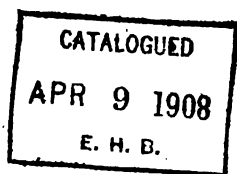
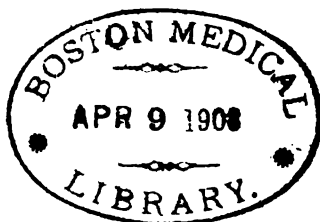
VOL. XXVI.

FROM JANUARY TO DECEMBER, 1907.

Sydney:

Published by the New South Wales Branch of the British Medical Association,
at 121 Bathurst Street, Sydney.

1907.



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W. E. SMITH,
Bridge Street, Sydney

AUSTRALASIAN MEDICAL GAZETTE

No. 304.

SYDNEY, JANUARY 21st, 1907.

VOL. XXVI., No. 1.

THE MEDICAL IDEAL.

*Presidential Address, Brisbane and Queensland Branch,
December, 1906.*

**By A. Jefferis Turner, M.D. (Lond.), D.P.H. (Camb.),
Brisbane.**

WHEN I consider that there are 64 branches of the British Medical Association and many medical societies outside the Association, that each branch or society has its president, and that, presumably, each president has to deliver an annual address, I am filled with dismay. Truly of presidential addresses there is no end, and I fear they are often a weariness to the flesh. I do not allude so much to those who have to hear them, though they have my sympathy, but my feeling at present is more acute for those who have to read them. As some compensation for the compulsory nature of his task, the president is by custom allowed a free hand in the choice of the subject or subjects of his address. He may be as discursive, as disconnected, as desultory as he pleases. I propose to avail myself of this privilege.

If I had to classify the men I know, I should do so according to their ideals. Not that this would be an easy or even a practicable standard. A man with low ideals may give them free expression, but, as a general rule, there are few things about which men are more reticent. It is only by intimate acquaintance, or after a prolonged course of close observation, that one can form an estimate of the inward pattern, which is continually influencing either consciously or unconsciously, the visible behaviour.

Similarly I would classify professions according to their ethical ideals. First, I would place all teachers of morals or religion, in the widest sense of these words, whose ethical ideal is so high as to be almost beyond the possibilities of human nature. Yet they cannot escape from it. It is admitted even by their enemies, who make it a favourite reproach, that the teachers do not live according to their ideal. Second, I would place the scholastic profession, including all who instruct the young, from the kindergarten

to the university. Third, I would place the medical profession.

No profession is without some ethical standard peculiar to itself. They say there is honour even among thieves, and I think it possible. The bookmakers of the turf have a moral code. Enter into conversation with one of this fraternity, and you will find that he recognises that among his colleagues there are "white men" and "black sheep." The tradesman has his standard of probity. The ideal trader must pay his debts. Instances have occurred where tradesmen who have become bankrupt have subsequently repaid their creditors, though under no legal obligation to do so, and such cases are admired as rare instances of conformity to the ideal standard. The ideal trader must give the purchaser good weight, and the article he sells must be what it is represented to be. He must not put sand in his sugar, and every pound of tea he sells must contain the full 16 ounces. I do not say the ideal is always realised, but it exists.

Why should the ethical standard of the medical man be higher and more exacting than that of the tradesman? The problem is interesting and deserves examination. It is not because medical men, as individuals, are ethically superior to tradesmen. There is no distinction of class nowadays, and both are drawn from the same families. The distinction must lie in the nature of the profession itself.

If I take a mental survey of this State I see new centres of population springing up here and there. As these reach a certain size, representatives of various trades and professions make their appearance. The hotel-keeper comes first, then the storekeeper; after them the blacksmith, the butcher, the carpenter, and so on. At a later date the bank manager, the solicitor and the doctor. All these, in taking up their residence, are actuated by the same motive, the desire to make an income for themselves and their families. In this the medical man and the tradesman are alike. But on closer examination a difference is discernible. The tradesman sells his goods at a fixed price to all. The medical man sells his services according

to a conventional tariff, which is not high in proportion to the services he renders, but which would soon make his fortune if it could be applied to all his clients. But a large number are attended by him at a much lower rate, either by contract or because he believes them unable to pay more than a proportion of the conventional tariff. Many also receive his services perforce for nothing. But why perforce? Because if he were to refuse to attend them for nothing he would injure his practice, invite opposition and lose his paying patients. Gratuitous medical attendance of some extent at least is a necessity of his position. He may give it cheerfully or grudgingly, but in either case he is held in the grip of an ideal from which he cannot escape if he would. Nor does he escape in a city. Here, indeed, he can refuse to attend the necessitous individual, but what with hospitals, charitable institutions and poor patients whom he chooses to attend, there are medical men, half or more of whose work is performed entirely for nothing. In this the medical profession is very different from most. It appears that the present social ideal is that all, whether rich or poor, should be able to obtain medical assistance. It may or may not be part of the ideal of the individual medical man, but it is part of the ideal of his profession.

There is another and still more important difference between the medical man and the tradesman. In dealing with the latter the buyer is assumed to be a competent judge of the quality of what he purchases. So long as the article is not adulterated, and so long as he gives fair weight, the tradesman has no further responsibility. If I buy a pound of tea I must not be given an article containing dried birch leaves or iron filings, or spent leaves which have been redried. But whether it is good tea or not is not for me to judge. This must be so, for to me good tea is the tea that I like best, and of that I am the most competent judge. Furthermore, I may prefer to buy tea that is not of the best quality, because it is cheaper in price. But the purchaser of medical advice is in a different position. He is no competent judge of the advice purchased, though he may think he is. There are patients who come to us expecting, and prepared to pay, for advice which is in accordance with their own wishes; and disappointed, or even resentful, if they do not get it. These are not of the wiser sort, nor are they very numerous. As a general

rule, the patient comes seeking the advice which the medical man thinks best for him, and prepared to submit his own judgment. All patients, whether wise or foolish, imagine that they obtain a medical opinion which is based entirely on what is considered best for the patients' interest, quite unbiassed by any consideration of what is for the profit of the person consulted. They place him, so far as their health is concerned, in the position of a trustee, and a trustee is bound not to allow himself to be biassed by any personal consideration, but to act wholly for the best interests of his client.

In ordinary business self-interest is the chief guiding motive. With some qualifications, which I shall not delay to discuss, it is commonly assumed that every man engaged in business is prompted in all his transactions by the motive of personal gain, and that the general interest of the community is best consulted by the free competition of those who are strenuously engaged in pushing their own fortunes. Does this apply equally to the medical profession? I think not. No doubt it may be argued that the success and advancement of the medical practitioner depends on the good results of his treatment, and that therefore a keen desire to increase his income is sufficient incentive for him to do his best for his patients. Granting some force in this contention, I can only regard it as a half-truth, that is to say, one of the most dangerous forms of error. It may be true in the main, but the exceptions—the instances in which the interests of trustee and client do not coincide—are by no means rare. Let me give a few illustrations. There are a few patients, mostly women, who are most anxious to be relieved of some comparatively trivial or perhaps wholly imaginary trouble by surgical operation. They have no conception of the possible dangers or deleterious after-effects of what they ask for. Nothing else will please them. Some indeed I have heard of go from one surgeon to another and undergo a series of operative interferences, none of which perhaps was really in their best interest. If the surgeon consults his own interest he will of course operate in these cases. It pays well. The risk to life is very small in such cases under present conditions of surgery. The patient almost certainly recovers from her operation; she thinks she is better for a time, and advertises the operator among her friends. The ultimate results are remote; the operator rarely hears

of them, and if they should come under his notice they may be explained away. Conversely, there are of course cases where immediate operation is to the best interest of the patient, but he is averse to it. Perhaps it is a case of sudden illness, for instance a perforative peritonitis. The patient will very probably die after operation, and the friends will say the surgeon killed him. If by good hap he recovers they will not realise the imminent danger from which he has been saved. Here the temptation is to temporise, to please the patient and his friends by delay, to operate perhaps not at the best time for the patient, but at the least dangerous time for the surgeon's reputation. Again, we have the phthisical patient, whose best chance is immediate removal to a sanatorium; but there is little profit to his doctor in that. A phthisical patient is usually sanguine; if he is also wealthy, there is much profit to be made by keeping him in town, and tinkering him with drugs. He is sure to think he is being cured, and will be proportionately grateful. When his disease has progressed sufficiently far, he may be sent away. There is not much chance of his blaming you for your assiduous treatment, which was more for your interest than his own. Another example is the well-to-do patient with a faith in alcoholic drinks, and a liking for them. Much can be made out of this patient—so long as you do not insist on giving the only advice that will do him good if he follows it. There is the patient with a tendency to become a "*malade imaginaire*," who by a little management can be converted into that towards which she is inclined, and so into a regular source of income. I need not multiply instances to show that for the practice of medicine the ethics of trade are insufficient. A medical man may indeed be a tradesman, but he cannot be an honest tradesman, for the ethics of trade are not sufficient to secure honesty in the practice of medicine.

That a medical practitioner is not to be influenced by any consideration of self-interest in the advice that he gives is a rule that no one would be so foolish as to infringe openly. I fear, therefore, that you may consider that I am needlessly dwelling on what is obvious; but I do not think it is waste of time. For what is obviously part of our ideal is difficult to carry out in reality. It would be foolish to pretend that the rule is always observed; the wonder is that it is

observed so far as it is. Self-interest is such a powerful underlying motive, and so often influences conduct unconsciously or semi-unconsciously. Patients are often so very foolish, so distrustful of the plain simple truth, so willing to pay handsomely for humbug. There is always the never-failing excuse handy: "If I do not give him the humbug he wants, some other man will." Competition is keen, present profit is always near, and the traditions of an honourable profession may appear distant. I know no better instance of the power of an ideal than that which struggles, by no means without success, against such temptations as these.

We live in an age when most things are regulated by competition, and the medical profession is no exception. This competition is not less real because it is silent. It may be regulated and purged of some of its baser elements by the professional code of honour, but it is not thereby rendered less effectual. Indeed it is quite possible for a man's keenest competitors to be his best friends. It is part of the professional ideal that this shall be an honourable competition. The tradesman is allowed full liberty of advertisement—a liberty which is, by the way, often grossly abused—because his customers are assumed to be competent judges of his wares. Our profession has set its face sternly against advertisement, for the reason that free advertisement could have no other issue than to attract patients to the baser and more ignorant of its members—a result which would not be for the public good. But our ideal in this matter goes far beyond what can be enforced by any set of rules. If a medical man wishes to advertise himself he does not need to exercise much ingenuity to do so without committing any technical breach. Nothing can prevent him from *viva voce* advertisement in his consulting-room, or at his club, or among those he meets casually, nor from prompting his patients and friends to talk about his extraordinary skill or marvellous operations. Similarly, for one medical man to unfairly depreciate the work of another is an offence for which he may be brought to book, if he does so clumsily. But he must be very deficient in skill if he cannot attain the same result without incriminating himself. A smile, a shrug of the shoulders, the tone of the voice, or even a significant silence may be equally effective; if not, it is always possible to use some ambiguous phrase which will answer the purpose and can

subsequently be explained away if necessary. In all these matters it is not the letter of our rules, but the spirit in which we act and speak, that is of most consequence.

I have said that charity is part of the medical ideal. Under this heading it is necessary to make some reservations. Charity is not always a virtue; it may be a weakness. *Corruptio optimi pessima*, as the old adage puts it. Indiscriminate and demoralising charity is no part of our ideal. There are some patients—a minority, but by no means an insignificant minority—who prefer to obtain medical advice and assistance without paying for it. They include, of course, those who never pay for anything unless they can help it, but they also include some who appear to consider payment less obligatory in this particular instance than in any other. This curious state of mind is, I think, due to the belief that medical charges are unnecessarily high and that medical men belong to a wealthy corporation, to whom the payment of their fees is a matter of minor consequence. This is a mistaken belief. Those of us who make a income largely in excess of their unavoidable expenditure are comparatively few. A medical man does not pay a high rent for a house in a hot and dusty city because he likes it, but because he is forced to do so by the exigencies of practice. He would probably much prefer to live in a cottage in the suburbs. He does not drive good horses or run an expensive motor for his own pleasure, but for the convenience of his patients. These things are forgotten; it is also forgotten that a medical man's education is longer and more expensive than that for any other profession, and that having obtained his diploma he has still usually a long apprenticeship to go through before he is in a position to make a fair living by practice. Finally it is forgotten that should he succeed in obtaining this he is probably well up into middle life, and that with advancing years his income diminishes. Even though his professional ability and reputation still continue in advance of younger competitors, which is not always the case, he is unable to keep up the strain of an extensive practice, and finds himself compelled by physical reasons to restrict the quantity of his work. His harvest, should it ever come to him, is restricted to comparatively few years, during which he must provide for his old age and probably for the education of his children. If these things are fairly con-

sidered, it will be found that the average incomes of our profession are far from high; and if medical work is considered purely from a money-getting point of view, it is a poor speculation.

It is a duty which we owe to the public as well as to the profession to secure a fair recompense for our services to our patients according to their means. But there are two kinds of institutions in which there are special difficulties. I allude, firstly, to hospitals, secondly to friendly societies and medical benefit associations. Now, a hospital is an institution for providing free medical aid to those who are not able to pay for it. They may be only relatively poor, that is to say, able to pay for ordinary medical attendance, but unable to sustain the expense of a prolonged illness or a major operation. Unfortunately there has arisen in connection with the latter a system of patients' payments, not towards the expense of medical treatment by the honorary staff, which is entirely free, but towards the expense of keeping up the hospital. No one can object to patients making such donations to the hospital as they can afford, in part payment of the expenditure they have entailed; but to make such payments a matter of inquiry and bargaining before admission is destructive of the root-idea of a hospital—that is to say, a place for providing free medical aid. Some patients, not, I think, many, strain their limited means to keep up weekly payments as a matter of obligation, though they would be right subjects for free treatment. Others, and I believe, not a few, actually consider that they are paying for services rendered, including those of the honorary medical staff. Those who might have some qualms of conscience at accepting charity, readily stifle their scruples by the payment of a few shillings a week. Meanwhile the outsider remarks: "So-and-so, who is much better off than myself, has been a patient at the hospital; why should I be expected to give money for the hospital to treat men like him?" It would be found easier to prevent abuse if patients' payments were abolished, nor would the hospitals' revenue suffer in the long run.

To impose on the funds of a hospital may be considered a venial offence only by the unthinking. Every such offender is occupying the bed or taking up the time which would otherwise have been devoted to the relief of which someone is really in need. He is

wasting the money which has been provided for the treatment of those poorer than himself. Lastly, he is defrauding the medical officers who are attached to the hospital. The mean-spirited robber of the poor is not likely to consider the last item of much consequence; but it is only because most men are honest and pay their doctors' bills that medical men exist and undertake hospital work.

I think medical men sometimes make a mistake in sending cases into the hospital for operation. If a patient can afford to pay for nursing and anæsthetist, and a small fee for the operation, I think he should, if possible, be treated outside. To send him into hospital encourages the idea that outside operations are too costly for any but a few, and there is a real risk that the patient, having been introduced to the hospital, will in future demand hospital treatment on his own account. Every practitioner is, of course, entitled to operate only for a fixed fee if he prefers, but in that case he might transfer the case to a competent colleague, who finds it worth his while to accept less.

I now come to a difficult question—that of friendly societies and medical benefit associations. Let me clear the ground by making two admissions. Firstly, I consider friendly societies, in their medical relations, are useful, indeed indispensable institutions. There are a large class who are unable to pay ordinary medical fees for a long attendance, who are yet not suitable cases for free treatment, and, to give them the credit that is due, would resent the offer of free treatment. By a system of fixed annual payments these are able to insure themselves against the expenses of illness—an insurance particularly necessary in the case of those whom illness may deprive of all power of payment. They insure also against illness in their families, which, indeed, forms the bulk of the club doctor's work, and provide a fund from which they can obtain sick pay in case of disablement, or draw funeral expenses in case of death. They thus practice thrift, self-help and mutual assistance, and those who do this are part of the backbone of the State. My second admission is that medical attendance on lodges has nothing to do with charity; it is purely a business contract. The payments are fixed and certain, not subject to fluctuation or default, and medical men accept them because they consider them worth accepting.

The fact remains, however, that medical men are working on two different scales of remuneration, and the question arises, how are the two to be discriminated? It is a question that cannot be shirked; if we decline to attempt to solve it, it will solve itself, probably not in the best way. I can see only three possible methods. Firstly, there is the solution which naturally suggests itself to the commercial mind—that is, to supply an inferior article for the lower price. But this is absolutely contrary to the ideals of our profession. It is part of the medical ideal that a practitioner having once undertaken a case, whether for a large fee or a small fee, or for no fee at all, must do absolutely his very best for the patient. There are no limitations. He is bound to treat his lodge patients and his private patients with equal care, skill and attention. He is not, of course, under any obligation to treat his lodge patients better than his private patients, as the former sometimes seem to expect. He need not pay the former more frequent visits than the latter, nor should he be bothered by the trivial ailments or harassed by the urgent calls of lodge patients who would not think of troubling a doctor under similar circumstances if they had to pay him according to his services. But the suggestion that, according to commercial principles, he should treat his lodge patients less well in return for their inferior remuneration is mentioned only to be condemned.

The second solution is that lodge practice shall be confined for the most part to a separate and inferior class of practitioners. This seems to be the present tendency, and is the natural consequence of the policy of a large section of the lodges. This class will, of course, include the incompetent, the alcoholic, and those who have failed in better lines of practice; but it will mainly consist of those who, however honest and industrious, have by several years of such lodge work rendered themselves incapable of becoming medical practitioners in the true sense of the word. The reasons for this I shall mention presently. Whatever opinion may be held as to the influence of this tendency on the medical profession, no one with any real knowledge can hold that it is to the advantage of the lodges themselves.

There remains only the third possibility, that a medical man may attend both lodge patients and private patients, treating both to the best of his skill and care, but accepting

a lower remuneration from the former in consideration of their smaller means. For this to be possible there must be some understanding by which only those members whose incomes are within a certain limit—and they are of course the great majority—shall take advantage of the medical benefits of the lodge. Those few lodge members who are in comfortable circumstances, and yet use the lodge as a means of getting cheap medical attendance, are doing their poorer fellows an injury, for they undoubtedly deter many of the best and most conscientious members of the profession from having anything to do with lodge practice.

Recently we have seen some new developments of contract practice. There is for example the proprietary club, an organisation in which a canvasser and some medical man work a joint-stock concern. This has failed to establish a footing in this State, nor is it likely to do so. More formidable is the A.N.A., a semi-political association which has gained such strength in the State of Victoria that, while we have well authenticated accounts of the position in that State, our correspondents usually request that their names shall not be published. In Northern Queensland, as we hear from more than one source, the public hospitals, supported mainly by the taxpayers' money, are being converted into medical unions. This is nothing less than a deliberate fraud on the revenue, and if it is not checked by the Treasurer will prevent the inhabitants of the districts concerned from obtaining the services of any reputable medical man. To make the matter clearer I will quote from a letter received a few months back. "I would like to draw the Association's attention to the fact that medical unions in connection with hospitals are being formed at various places in the north. The usual subscription is 1s per week. This amount is paid into the hospital funds and bears Government subsidy. In return for such, the man, his wife and children receive free treatment at the hospital or in their own homes, and are supplied with necessary dressings, etc. Persons of every rank in life are allowed to join, and all receive equal privileges. The practice is spreading in this district, and if not checked will become a serious menace to private practice."

I am not one of those who take a pessimistic view of these developments, for I

believe that the medical profession, if true to its own ideals, is perfectly able to protect itself against outside pressure. But it is interesting to note what would be the ultimate consequence of a large extension of contract practice so as to absorb the whole of the community. At first, no doubt, professional incomes would suffer badly; but this would only be a temporary result. The medical profession, like any other walk of life, is subject to the laws of supply and demand, the only difference being that with us they act more slowly. We should no longer attract medical men from other parts of the world, and as parents began to find out the lessened profits of medical practice they would cease to send their sons to our medical schools. Ultimately medical incomes would revert to the same relative position that they had before the disturbance, but there would be fewer medical men. Towns that before had two or three would now have only one, and all places that formerly could only support one doctor would have none. In the larger towns practitioners would also be much fewer, but would be much harder worked. At the same time their work would be of much lower quality. Ultimately in every case the general public would be the sufferer. Those who were wealthy would suffer least, for there would always be some consultants in the large cities who did no contract work, and the rich could afford to consult them. The poorer classes would have to make the best of the new condition of things.

It is therefore far more to the interest of the general public than to the interest of the medical profession that club practice should be placed on a proper footing. We are acting in the interests particularly of the poorer classes when we endeavour to confine this practice to *bona-fide* friendly societies. We are, I think, justified in urging that in contracts with friendly societies the following conditions should be observed:—1. There should be some limit of income—not necessarily a rigid limit—as in the model agreement of the N.S.W. Branch, beyond which members should not be placed on the medical list. 2. The medical officers should be paid a fair rate of remuneration (as to what is a fair rate I am not prepared to dogmatise, but the rate would no doubt vary with the locality). 3. That the contributions paid into the medical fund should be transferred to the medical officers intact, without any

deductions beyond a small percentage for administrative expenses. 4. That the agreement should contain no grossly inequitable clause, which would be considered degrading and insulting by any man with any self-respect. I cannot see any great difficulty in coming to an amicable understanding as to the last three points. With regard to the first, I admit there is a difficulty; but sooner or later this point will have to be faced, for it affects the whole principle of contract practice.

While these are the only points on which we are entitled to make demands, there are two others on which we may give some friendly advice. Firstly, lodge doctors should not be worried by a lot of trivial ailments, for which the lodge members would not have thought of consulting a medical man unless they had him bound by contract and "wanted to get their money's worth." This sort of thing wastes his time, and prevents him from paying proper attention to those members who are really ill. The habit of getting a bottle of medicine for every little ailment is a bad one, and from what I hear the drug-taking habit is spreading among the families of lodge members to a deleterious extent. Secondly, I would strongly urge that too many names should not be put on the doctor's list. It is not our business to say how much work a medical man can do. We know there are great differences in this respect. But we do know that medical work is a very difficult and complicated matter, and cannot be done well "on the rush." If the doctor has no time to examine his cases with proper care, and none to think over them, if his first thought in his surgery is how soon he can empty his waiting-room so as to begin his round of visits, and his first thought when he enters a patient's house is how soon he can get away—that doctor is not practising medicine, but only making a pretence of it. Not a conscious pretence, I dare say, because after a few years of this routine he is quite incapable of doing any other sort of practice. Of this man it may be said, "Once a club doctor, always a club doctor." He may be a hard-working man with a family to support, and I am sorry for him; but the truth must be spoken. He is a little better than a prescribing chemist, for he can set a fracture and attend a midwifery case, but for most of his work the chemist would do just as well. And the lodges who

employ him doubtless imagine they are getting medical attention, not knowing that that is impossible under the conditions. Some lodge members, who are better off than the rest, only employ their lodge doctor for what they consider trivial ailments; if the case appears serious they consult someone else. Here, as in every other instance, it is the poorer members, who cannot afford a medical fee, who suffer most from a bad system.

This digression on lodge practice has taken longer time than I had intended. It seemed worth while to show that our attitude towards the lodges is not a mere matter of commercial bargaining, but is inspired by ideals, which it would be well for lodge members to recognise. I do not fear any serious results from mere outside attempts to impose commercial methods on the profession. What I do regard as a grave source of danger is the existence of the commercial spirit *within* the profession. This danger always has existed, and always will exist. It is the test which demonstrates the reality and value of the ideal. It is always open to a medical man to increase his income by disregarding the ideals of his profession. If he does so he makes a very bad bargain. He forfeits the respect of his fellow-practitioners. Having the good fortune to belong to a profession where absolute independence of all that is mean or dishonest is always possible, he deliberately sacrifices this inestimable advantage for a sorry recompense. Success in the practice of medicine is not to be measured by the extent of a man's income; and if any one of us is unconscious or incredulous of this, we can only regret that he did not adopt some other profession more consonant with his own ideals. Not that there is any harm in a larger income attained by methods that are legitimate. In this matter I think we might well adopt the stoical philosophy. Epictetus, in a striking passage, compares mankind to children scrambling for figs scattered from a doorstep. "If a fig fall into thy bosom, take and eat it, for so far even a fig is to be valued. But if I must stoop down for it, and throw down another man, or another throw me down, and I flatter those that enter in, then neither is a fig worth so much, nor is any other of the things that are not good, even those which the philosophers have persuaded me not to think good."

PRECIPITIN REACTIONS IN RELATION TO STATE MEDICINE AND THE PUBLIC HEALTH.

By D. A. Welsh, M.A., B.Sc., M.D., Professor of Pathology, and H. G. Chapman, M.D., B.S., Demonstrator of Physiology, University of Sydney.

It is a commonplace of progress in medicine that phenomena which at first present only a scientific interest may within a few years come to attain great practical importance. It not infrequently also happens that the general recognition of this importance, although strongly urged, is, for some unaccountable reason, unduly delayed. No better illustration could be given than the development and the neglect of precipitin reactions in relation to State medicine and public health. When in 1899 Tohistovitch found that the serum of a rabbit inoculated with small quantities of eel serum yielded a precipitate with solutions of eel serum, the observation did not appear to be of much significance. Nevertheless it soon became apparent that Tohistovitch's discovery was only a particular expression of a general law governing the reactions of the animal body to alien sera and to other albuminous substances introduced within it. And, when the further observation was made that precipitin antisera interacted as a rule only with the material employed in their preparation, and still more when the nature and limits of the specific interactions became better defined, there were at last revealed the far-reaching practical applications of precipitin tests which have been too often ignored in the administration of justice among English-speaking peoples.

Nature of precipitin reactions.—The essential nature of a precipitin reaction has been indicated in the above experiment of Tohistovitch. A conveniently-handled animal, such as a rabbit, is repeatedly inoculated with some foreign albuminous substance such as blood serum, milk, white of egg, etc., known as the homologous proteid. In a short time the serum of the rabbit is found to yield a precipitate when added outside the body to clear solutions of the homologous proteid, and this constitutes the precipitin reaction. The rabbit's serum is then said to contain a precipitin for the homologous proteid. It is commonly supposed that a precipitin antiserum acts by throwing the homologous proteid out of solution, and that the bulk of the

visible precipitate is made up of homologous proteid, which has accordingly been known as the "precipitable substance." In the course of our work on precipitins, however, we were impressed by the fact that the precipitin antiserum itself is the main source of the precipitate which appears on interaction with the homologous proteid, and that the term "precipitable substance" is a misnomer as applied to the homologous proteid, the precipitable content of the antiserum being the true "precipitable substance." This we were able to demonstrate at a meeting of the Pathological Club of Sydney, in November, 1905, and again at a meeting of the British Medical Association of New South Wales in December of the same year. An account of these preliminary demonstrations appeared in January, 1906, and full details of our experiments and of our argument were published later in the same year. After our papers were written and despatched we noticed that Moll, in 1905, and Rodet, in 1906, had been led to a similar conception of the precipitin reaction.

It was at first thought that precipitin reactions were rigidly specific—in other words, that an antiserum prepared against one albuminous substance would not interact to yield a precipitate with any other form of albumen. Further experience, however, particularly in the hands of Nuttall and of Uhlenhuth, led to a modification of the earlier views by showing that the limits of precipitin interactions were less rigidly defined, but that they were nevertheless remarkably definite. Nuttall found that a distinct blood relationship could be demonstrated by means of precipitin tests between animal species related by general zoological characters, and that, as a general rule, the degree of intimacy of the zoological relationship was reproduced by this blood relationship. A precipitin antiserum prepared against horse serum, for example, would give a maximum reaction with horse serum; but the same antiserum would also give marked reactions often indistinguishable from the maximum, with the serum of donkeys and other equine animals, possibly also minor reactions with less closely related animals, and in special circumstances indications of a general mammalian reaction might even be obtained. Similarly, antisera for human blood give a maximum reaction with human serum, and may also give a marked reaction

with the serum of the higher apes ; whereas the reactions with sera from monkeys and other animals is not usually greater than would be accounted for by the general mammalian reaction. This recognition of a "group" specificity placed on a secure foundation the precipitin test as a means of distinguishing and identifying blood serum and other proteids from different animal species.

The exceeding delicacy of the biological method, as it came to be called in contrast to ordinary chemical methods, is shown in two ways, any one of which is sufficiently remarkable. In the first place it can reveal among animal proteins specific distinctions which cannot be appreciated by the methods of physiological chemistry. The certainty with which blood sera may be discriminated has been sufficiently emphasised. Similarly a lactosera (a precipitin antiserum prepared with milk) will give a maximum reaction with the homologous milk and not with heterologous milks. Further, antisera prepared with egg white give maximum precipitates only when they interact with the homologous egg white, and in our experience a less marked reaction is invariably given with any heterologous egg white. It is certainly remarkable that among such closely related proteins as avian egg whites it should be possible to make any distinction whatever between the homologous and heterologous substances. But this becomes possible only when sensitive methods are employed such as will be indicated later.

Here should be noted a circumstance which determines at once an important limitation and a still more important source of strength in precipitin tests. An antiserum prepared with human blood serum, for example, will react not only with human blood but with any other albuminous fluid of human origin containing the requisite proteins. A precipitin test, therefore, will not as a rule distinguish one form of human albumen from other human albumens, but it will, as a rule, distinguish any human albuminous fluid such as that derived from blood, muscle, bone, etc., from any of the albumens of other animals. It is upon the otherwise elusive, but specifically human, characteristics of the albumens that the precipitin differentiation depends.

The second aspect in which the extreme delicacy of the precipitin test presents itself

is shown by the detection of quantities of the homologous proteid too minute to yield a trace of precipitate with ordinary protein precipitants. By means of a suitable antiserum we have been able to obtain definite small precipitates from interactions with '00000005 gram of dried horse serum dissolved in '5cc. saline solution, representing a dilution of 1 in 10,000,000 of dried horse serum, or about 1 in 1,000,000 of undried serum. On the other hand, ordinary chemical methods failed to detect the presence of one hundred times that amount of the serum dissolved in the same quantity of salt solution. When one remembers the small traces of blood or other substance that may be available for examination in a medico-legal case, this aspect of the reaction becomes of practical importance.

Another means by which exceedingly minute traces of the homologous proteid may be detected is by the deviation of complement as introduced by Neisser and Sachs and advocated by Muir and Martin. It is claimed by these observers that this constitutes a more delicate test for proteins than the precipitin test alone.

Preparation and use of precipitin antisera.—Antisera are readily prepared by the introduction of the homologous proteid into rabbits. The material may be injected either into a vein, e.g., the marginal vein of the ear or into the peritoneal cavity. The latter method is the most convenient, since it may be so rapidly carried out. No other preparation beyond sterilising the syringe with boiling soda solution or water is required. The immunising substance is introduced on six or eight occasions at intervals of two or three days. If the period between the injections be short, there is no need to increase the dose of material in the later injections. Powerful antisera are obtained by introducing 10 cc. egg white every second day until six quantities have been given.

As the material for injection must be kept from 12 to 14 days, it is needful either to ensure a fresh supply for injection or to preserve the substance in some suitable manner. The introduction of material badly contaminated with micro-organisms is liable to set up peritonitis and destroy the rabbit, so that the preservation of a more or less sterile material is to be aimed at. While it is perhaps not possible to lay down principles applicable to all substances, the use of

solutions of dried material meet most of the requirements of the case. All the fluids used for the purpose of immunisation may be dried in small quantities (3 or 5 cc.) in vacuo at 37° C. over calcium chloride. In this way 25 cc. may be dried in a desiccator in 24 to 48 hours. Provided that the material be dried in thin layers, no trouble will be experienced in the subsequent solution. Solutions of known weights of this dried material may be made in sterile salt solution when required.

From 7 to 14 days after the last injection the rabbits are killed to collect the blood. This is conveniently carried out after Nuttall, by cutting the throat and receiving the blood in a large sterile dish. The covered dish is inclined after the coagulation of the blood so that the serum runs to the lower edge as it separates out. It may then be taken up and either sealed in sterile pipettes, or better dried upon sterile watch glasses as described above. Such antisera retain their activity for months.

Since it has been shown that the precipitum is derived mainly from the antiserum, and that only a small quantity of homologous proteid is required to precipitate the precipitable content of the antiserum, it is necessary in carrying out comparative tests to use such a quantity of antiserum as will yield an easily measured deposit, and to add, if possible, sufficient homologous proteid to fully throw down the precipitin. As the degree of dilution affects the precipitation, it is advantageous to keep this factor constant. With antisera of average potency .01 gm. of dried antiserum corresponding to .1 cc. of fluid antiserum may be dissolved in .1 cc. salt solution, and this may be precipitated by .0001 gm. homologous proteid dissolved in .1 cc. salt solution and the whole made up to 1 cc. with salt solution. These tests are conveniently carried out in narrow tubes 4 mm. in diameter and 1 decimetre long. The homologous proteid may be fresh or may have been kept dried for years. The proportions used in particular experiments can be varied to suit circumstances.

In comparing closely related proteins, the differentiation is most evident when varying amounts of antiserum interact with constant amounts of protein. The results obtained are shown in the following table. In this series dry hen egg antiserum was dissolved in salt solution and tubes were arranged in two series. To the tubes of series A, hen-egg albumen was added; to the tubes of series B,

ostrich egg albumen. The precipita were read in 24 hours.

No.	Weight of antiserum prepared by the injection of dried hen-egg white.	Weight of dried hen or ostrich egg albumen.	Deposit in series A. (hen)	Deposit in series B. (ostrich)
1	.01 gm.	.0005 gm.	1.5 mm.	1.0 mm.
2	.005 gm.	.0005 gm.	1.0 mm.	.5 mm.
3	.002 gm.	.0005 gm.	.5 mm.	trace
4	.001 gm.	.0005 gm.	trace	nil

Practical application of precipitin reactions.

—Apart from medico-legal questions, the precipitin test has been applied to the determination of blood relationships throughout the animal kingdom in the extended series of observations made by Nuttall and his coadjutors. But the test may also have important clinical applications. It may be used, and has been used, to reinforce the technique of physiological chemistry in the recognition of specific proteins where ordinary methods would be at fault. Thus the presence in human urine of hen-egg albumen was determined by interaction with a precipitin for hen-egg white (Ascoli); and, similarly, cow's milk was detected in human urine by the appropriate lactosum (Linosier and Lemoine). In such circumstances ordinary chemical tests would reveal only the presence of albuminuria, whereas the whole treatment and issue of the cases turned upon the precise nature of the albumen and not upon the mere fact of its presence.

But it is with the medico-legal aspects of the test that we are now mainly concerned, and these include—(1) The identification of blood stains in suspected criminal cases; (2) the recognition of human or other animal remains; (3) the detection of substitutions and adulterations in food.

(1) It is in their capacity to indicate the source of a blood stain that precipitin reactions are so useful to the medical jurist. In many criminal cases the nature of a few blood stains may be the most important link in a chain of circumstantial evidence. Formerly it was possible only to tell that the stains were blood, and quite impossible to distinguish human from other animal blood (except occasionally when the blood of birds or of reptiles was in question). Now by means of the biological method it is possible to determine with certainty whether or not the stains are human, and, if not human, to what animal species they belong.

It is to the enlightenment of Germany, however, that the earliest official recognition is due, and several years have now elapsed since the test has been formally adopted in the medico-legal practice of that country. In 1903 the Minister for Justice in Berlin circulated among the Presidents of the Courts of Law a minute in which he drew attention to the nature and significance of the new biological test for blood, and strongly recommended its use in all suitable cases. He incorporated in his minute the following report by a Scientific Committee for Public Health, and we can only endorse this admirable presentment of the case for the precipitin test:—"Experience of the serum method of blood examination is now in Germany, as in other countries, so extended, and the results are essentially so concordant, that no doubt can longer exist that this new biological method enables us with great certainty to determine the origin of fresh as well as of dried blood, to distinguish human from other animal blood, and to discriminate between the bloods of different animal species. It is, therefore, strongly recommended that use should be made of this excellent method, not necessarily to supplant but to supplement and complete older approved methods of blood investigation in general medico-legal work." By 1903 the biological method of investigating blood stains had been recommended by the Minister of Justice in Austria also, and had been officially recognised by the Governments of Egypt and of Roumania (Nuttall). Moreover in 1902 both Whittier and Wood had reported the successful use of precipitins in medico-legal work in America. Nevertheless, although Nuttall's well-known book on precipitins was not published until 1904, we have failed to find in it evidence that the test has been put to practical use in any British court of law, nor are we aware of any instance in which the method has been utilised for the furtherance of justice in Australia.

It is noteworthy that the issue in a criminal case is usually very definite, so far at least as the expert need be called upon for a decision. The case for the Crown may rest on the supposition that certain blood stains are of human origin; the accused may allege that the blood is that of some animal, let us say a sheep, with which he has been dealing. The problem, then, is not to identify a blood stain of unknown nature, but merely to decide whether the blood is that of a man or that of a sheep. We desire to emphasise this point

for the consideration of medical jurists. When all information is withheld regarding the origin (suspected or alleged) of a blood stain, it may not be possible to identify the blood except after a long and tedious investigation, and the use of many different antisera. It might still be comparatively easy to say whether or not the blood were human; but, if the blood were not human, it might be exceedingly difficult to trace it to its exact source. With a limited number of antisera, however, provided they are selected to emphasise the more important "group" specificities, even the general problem may be narrowed almost from the beginning. Then, having obtained a "group" reaction, one might proceed to prepare other antisera designed to carry the differentiation still further. There is, however, in such cases a twofold risk of failure to reach a definite conclusion, since either the specific antiserum may not happen to be among those which the investigator has thought fit to prepare, or the small size of the blood stain may preclude a sufficiently exhaustive series of tests. It is otherwise when the issue is presented, as it commonly arises, in a definite form when, for example, a decision has to be made between human and one other kind of blood; then, provided that the blood is still soluble, and that there is no mixture with any substance that may mask the reaction, there should be no difficulty in reaching an equally definite conclusion. Even if, and this is an important point, the appropriate antisera are not at hand, they can be prepared within 21 days—an altogether inconsiderable delay.

Confusion may at first arise from the fact that both the prosecution and the defence may be so far right that two kinds of blood may be present together. A murderer might become bespattered with the blood of some lower animal either before or after the murder. Solutions of the blood stains would then react not only to antisera for human blood, but also to antisera for the blood of the other animal. The co-existence in the same solution of two or more alien albumens does not inhibit the interaction of any one of them with its corresponding antiserum. Hence the crucial fact of the presence of human blood in the stain can be as certainly established when other animal blood is also present as when human blood is present alone. In such issues there must of course be kept in view the further possi-

bility that the blood in question may be neither that assumed by the prosecution nor that alleged by the defence, in which case there may be no escape from the general investigation.

The accuracy of the precipitin test for blood has been shown to be independent of the material on which the blood may have dried, provided that there is present no chemical ingredient that may inhibit or falsify the reaction. Blood dried on cloth, on metal, on wood, on paper, on earth and elsewhere has repeatedly been identified by Uhlenhuth, Wassermann and Schütze, Ziemke, Nuttall, Graham Smith and Sanger, and many others. Blood stains on leather, however, unless the blood has dried in a thick crust which can be scraped off, may not give satisfactory reactions, owing to the marked acidity of the leather (Nuttall). The presence of acids, alkalis, lime, or other chemical substances, except in very minute traces, may invalidate the test (Nuttall). But fallacies arising from such admixtures are of course readily exposed by suitably chosen control experiments.

The test is also independent of the age of the blood stain. Indeed there appears to be no limit to the time within which a reaction may be obtained. Many years may elapse without the blood losing its power of interacting with the corresponding antiserum. The only conditioning circumstance is the solubility of the blood. Long-continued drying tends to render blood insoluble in salt solution or in other solvents compatible with a reliable reaction. From some observations of Nuttall it would appear that when blood is dried in strong sunshine it may rapidly become insoluble—a fact which might tell in Australia.

If, then, a blood stain should fail to give a positive reaction with a precipitin for human blood, its human origin is not necessarily disproved. The blood may have become insoluble, or the reaction may have been otherwise inhibited. To prove that a blood stain is not human, the additional fact must be established that it is capable of giving a positive reaction with a precipitin for the blood of some other animal.

We have already referred to the fact, which Wassermann (quoted by Nuttall) was the first to point out, that the precipitin reaction is not, strictly speaking, a test for blood at all. When a blood stain gives a positive reaction with an antiserum for human blood, the

legitimate inference is not that the stain contains human blood, but that it contains human proteins capable of interacting with an antiserum prepared with human blood. As we shall presently see, other important uses of the precipitin test in forensic practice depend on this very fact that a positive reaction does not prove the presence of the specific blood but of specific proteins which may have many origins other than from the blood. In order to prove that a given stain consists of human blood it is necessary to show (1) that it reacts with human precipitins and not with those for other animal proteins—in other words, that it contains only human proteins, and (2) that it contains blood, as revealed by the approved spectroscopic and microscopic tests for derivatives of hæmoglobin.

It may not, however, be an easy matter to prove that a given stain consists wholly of human proteins. Even when the issue lies between human and one other kind of blood it would not suffice to test only one sample of the suspected matter, even though separate portions of that sample were independently searched with many different antisera. For let us suppose that the suspected blood stain did react with an antiserum for human blood, and did not react with other antisera tested, then one inference would be that, cognate bloods excepted, the stain did contain proteins of human origin. Let us suppose, further, that the stain had been proved to contain blood. It nevertheless would not follow that the stain was composed wholly or in part of human blood. It might be made up of human proteins not derived from human blood but from accidental contamination with saliva, perspiration, or semen, and the blood of some other animal for which an antiserum had not been prepared. To meet this contingency separate samples of blood must be taken from different parts of the stained material and, if possible, from different materials.

The possible presence of cognate bloods introduces one of the most interesting problems in the medico-legal use of the precipitin test. We have seen that most antisera exhibit "group" specificities—in other words, that a given antiserum, while yielding maximal precipitates with its homologous proteid, may give marked reactions with heterologous but closely allied proteids. In particular we noted that an antiserum for human blood might give marked reactions

with the blood of the higher apes and minor reactions with the blood of monkeys. It is in regard to the possibility of distinguishing human blood from that of apes or of monkeys that the question is commonly raised, and has been discussed by Uhlenhuth, Nuttall and others. Uhlenhuth has stated that the immunisation of closely related animals will yield more specific antisera—that, for example, the immunisation of an ape with human serum will produce an antiserum more strictly specific for human blood. Nuttall points out that an antiserum prepared with the blood of the species of monkey in question would give a greater reaction with monkey than with human blood. We would suggest that definite and diminishing quantities of the two antisera (one for human and the other for monkey blood) should be allowed to interact with constant small quantities of the suspected blood in the manner above explained for the differentiation of avian egg albumens. The work of Muir and Martin on the specificity of the deviation of complement indicates that by this means also differentiation of cognate bloods may be effected.

These considerations emphasise the necessity for carefully designed experiments, for rigorous controls and for careful interpretation of results. But these desiderata can be attained only by the intelligent co-operation of the Crown law authorities with the expert who is engaged to make the investigation and report. It is highly unsatisfactory when only one small blood stain is submitted and when no details of the case are supplied. In order that a satisfactory investigation can be made, the material to be tested must be suitably chosen, must be sufficiently abundant, and should be accompanied by a statement of the suspicions and allegations concerning it. Of the three conditions, however, the last is the least important. Such information is desirable, and may indeed be essential, in order that the energy of the investigator and the material at his command may be utilised in the manner best calculated to reach a definite conclusion. But we quite appreciate the fact that it might be considered advisable not to disclose the information, at least before a preliminary report had been made, and that a report might have more weight if it could be made in ignorance of the issues at stake.

(2) Although blood stains are the material that most commonly require identification by

the biological method, it may happen that other tissues are alone available, and we have seen that saline extracts of other tissues react specifically to the corresponding blood precipitins, provided that the requisite proteins are present in the solution. Hence fragments of bone, muscle or other tissues, found in suspicious circumstances, and too small to be otherwise recognisable, may thus be identified. Such a case has already occurred in forensic practice. In 1902 Beumer (quoted by Nuttall) successfully applied the precipitin test to minute fragments of bone found in the debris of a burnt building and suspected to be of human origin. The fragments were not completely incinerated, small portions of soft tissues remaining adherent. Saline extracts of the fragments did not interact with precipitins for human or for pig blood, but reacted definitely to a precipitin for ox blood, any suspicion of foul play being thus averted.

(3) The detection of substitutions or adulterations in food is only another application of the same principle. Meat in bulk cannot easily be replaced by an inferior substitute; but tinned meat or minced meat affords many opportunities for fraudulent substitution, and in one form or another forms a staple article of food in most countries. In Germany, for example, the addition of horseflesh to sausages is a penal offence, and the official test is that of Niebel, which relies upon the percentage of glycogen in the suspected meat. But it has recently been demonstrated by Pfüger that this method is based on fallacious premises. Pfüger showed that not only may horseflesh contain little or no glycogen, but that beef and veal may contain percentages of glycogen in excess of that officially recognised as distinctive of horseflesh. Little wonder, then, that Pfüger characterises the regulation as "a German law which punishes the innocent and allows the guilty to go free." After exposing the inadequacy of Niebel's glycogen test, Pfüger goes on to say that the only certain and reliable method of detecting horseflesh is that afforded by precipitin reactions. It is true that Ostertag made a brief reply to Pfüger's strictures, but, as no attempt was made to controvert Pfüger's main conclusions, it must be admitted that Ostertag's remarks were unconvincing, and succeeded only in reinforcing Pfüger's further contention that the biological method alone was effective in such conditions.

These facts serve to illustrate the kind of use that may be made of the precipitin test in the interests of the public health; and the possible applications of the test to tinned meat or to minced meat in Australia are too obvious to be detailed. It should be noted, however, that cooking may negative the reaction by denaturing the albumens on which it depends, but that underdone meat and smoked meat may give positive reactions.

Other forms of adulteration and substitution may also be detected by this means. Thus Uhlenhuth found that an antiserum for hen-egg white constantly gave negative results with commercial albuminous preparations which did not contain egg white, and positive results when they did contain egg white. Similarly von Rigler, by immunising rabbits with honey, succeeded in obtaining an antiserum which yielded precipitates only with solutions of honey and not with solutions of grape sugar or of cane sugar (Nuttall).

We have said enough to indicate that a great future lies before the precipitin test in the administration of State medicine and of public health, but we would remind the Association that the method is available in the present, and, indeed, has been available since 1902, when the work of Uhlenhuth became generally known. Doubtless the existence of the test and its possible applications have long been known to members of this section, but its importance may not have been fully appreciated, and our object in writing this paper will have been accomplished if we have brought the realisation of this importance nearer. Nevertheless it would be misleading to suppose that the importance of the test in medico-legal practice depends upon the readiness with which it may be applied by inexperienced observers, however expert they may be in other departments of scientific medicine. On the contrary, its importance depends upon the reliability and certainty of the conclusions that may be drawn by experienced investigators from a series of experiments properly designed, properly controlled and properly interpreted.

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Contributed to the Section of Sanitary Science and Hygiene at the meeting of the Australasian Association for the Advancement of Science, Adelaide, January, 1907.

FIBROID OF THE UTERUS, WEIGHING 19 lb., REMOVED FROM A PATIENT AGED 70 YEARS.

By W. J. Stewart McKay, M.B., M.Ch., B.Sc., Senior Surgeon, Lewisham Hospital for Women, Sydney (N.S.W.)

I EXHIBIT this tumour to-night not because it is a very large one, but because it was successfully removed from an old lady of 70. In looking through records of hysterectomy for fibroid of the uterus, I have found but one case in which the patient was older. The case is reported by Bland-Sutton. His patient was 72, and the tumour weighed 26 lbs. He says: "This is, as far as my knowledge goes, the oldest patient who has been subjected to so severe an operation as hysterectomy." Ovariectomy has, however, been performed with success on patients between the age of 70 and 82 years, and I have operated on a case of appendicitis when the patient was nearly 80 years old, and so marvellous was her vitality that she insisted on getting out on to the couch in her room on the fifth day!

History of case.—Mrs. C., aged 70 years. Forty years ago menstruation became profuse; she consulted a medical man, who diagnosed pregnancy. The menorrhagia lasted off and on for five years; then for some years the menstrual discharge almost ceased and she improved in health. At the age of 53 the monthly periods ceased, and a profuse watery discharge began, with occasional hæmorrhages, and has continued up till six months ago. About 15 years back she was treated for peritonitis, and she says that she has had four similar attacks since. Thirty years ago she first became conscious of the abdominal swelling, and this has each year increased; but it is only during the last 10 years that the tumour has caused her distress by its weight and size, for as it advanced above her umbilicus it caused dyspnoea, and palpitation of the heart. Eighteen years ago she consulted the late Dr. Chambers, but though he at first consented to operate, when the time came he advised her not to take the risk. When we remember the unsatisfactory condition of hysterectomy for fibroids at that period we cannot wonder at his refusal.

When I examined the patient in bed I found her propped up by several pillows, and she said that for some years she had had to sleep in that posture. She was a thin, pale

old lady, who gave you the impression that she was attached to the tumour rather than that the tumour was part of her. The tumour was perfectly smooth, and reached up to her ribs, her thin abdominal walls being tightly stretched over the solid mass. Her heart was intermittent, but the beat was fairly strong.



DESCRIPTION OF FIGURE.

P.—Chain to pulley C.—Corkscrew inserted in the fundus of tumour and attached to the pulley-chain by a piece of gauze. S. is the silk suture that closes the upper part of the abdominal wound to prevent radiation from the intestines. R.—Reservoir on the wall.

Operation.—Half an hour before the operation was commenced she received a hypodermic of morphine (gr. $\frac{1}{2}$), atropine (gr. $\frac{1}{100}$) and strychnine (gr. $\frac{1}{100}$). On the table she was enveloped in blankets, and layers of

cotton-wool were placed on her chest, while her legs rested on hot water bottles.

An incision reaching from her pubes to near her ensiform cartilage was made; the tumour was delivered by inserting a corkscrew into the fundus, and then the handle of the screw was attached to the chain of a pulley fixed to a bar across the theatre.

As soon as the uterus was suspended, a silk suture was inserted to close the upper two-thirds of the wound, so as to prevent radiation from the intestine. Clamp forceps were now applied to the broad ligaments, and the latter cut through on the right side, the uterine artery was picked up, the cervix cut across with scissors, the left uterine artery seized, the broad ligament divided, and the whole tumour was free, suspended from the pulley.

From the time the incision was commenced in the parietes until the tumour was removed, five minutes elapsed, during which time the operation was stopped so that Dr. Jones might take a photograph to show the use of the corkscrew and pulley. After the tumour was removed, the vessels were tied with silk, the cervix sewn with catgut, and the abdominal wound closed with silkgut. The whole operation occupied 23 minutes.

The patient lost no blood whatever; she exhibited no signs of shock: on the contrary, her heart, finding that it had no longer to pump for its nineteen-pound parasite, began to beat with such extraordinary force that I became very alarmed and administered nitro-glycerine every four hours for the first five days after the operation; I hourly expected that her cerebral vessels would give way. A mild attack of diarrhoea, however, appeared to bring the heart at last to its senses. The patient soon tired of bed and was allowed to get on to a couch in her room on the thirteenth day, and left the hospital during the fourth week.

The tumour, when bisected, proved to be an enormous submucous polypus, which had grown from the fundus and had gradually distended the uterus and cervix, so that the latter were represented by a thin envelope of tissue, which could be stripped off the polypus with ease.

Remarks on operations on old people.—

Before attempting to operate on an old subject I always examine the urine; provided the heart is in a fairly good condition—and it must not be forgotten that there is a

special heart-degeneration associated with the fibroid uterus—one may proceed with some degree of confidence if the kidneys are healthy. But if the kidneys are affected, no operation of magnitude should be attempted unless the operation be imperative; no organ in the body will trip you up after an operation more surely than a degenerated kidney.

At the time of the operation there are three points to have always before one's mind—the patient must be kept warm, every drop of blood is of consequence, and rapidity in execution is very necessary. With regard to warmth it is a good plan to have the legs enveloped in pants made out of gauze and cotton-wool, the legs may rest on hot water bottles covered with three layers of blue blanket, while the chest should be covered with cotton-wool, to which is sewn on the upper side a layer of protection. This is warm, and does not impede respiration as a blanket does.

In abdominal surgery, as soon as a large tumour is delivered as much of the wound as possible should be closed by inserting a single silk suture. Nothing causes shock sooner than to allow radiation from the abdominal contents. If we cannot close the wound we must cover the intestines with several hot gauze sponges.

After operating on old people one frequently finds that the pulse rate has not altered, yet the pulse grows more feeble after some hours and the patient sinks. I have no doubt that the condition of the pulse immediately after the operation has frequently given rise to the idea that these old people do not suffer from shock to the same degree that younger subjects do. The proper explanation is as follows: After an abdominal operation, the walls of the larger vessels having been thickened by gradual degeneration, no longer are as sensitive to vaso-motor influence as formerly, consequently we no longer get the relaxation and dilation of the peripheral vessels which is one of the most noticeable features in shock. But the walls of the splanchnic vessels are not affected with the degenerative changes of the peripheral vessels, and when shock is present these vessels, after an abdominal section—but not necessarily after other operations—dilate and slowly become engorged, and it is this bleeding into the splanchnic veins that causes the feeble pulse which is so often taken as a sign of heart failure. In reality the heart does not fail; it simply does not

receive enough blood at its right side; it is quite capable of pumping, but it has a too small stream to work on.

Note.—The illustration accompanying this paper, to show the use of the pulley in removing large fibroids, is from a photograph taken by Dr. Jones, late house surgeon of the Lewisham Hospital. The plate was over-exposed, so it was handed to Dr. MacCarthy, of Sydney, and he, after much trouble, produced the above picture; only an expert could have so dealt with the negative.

(Read before the New South Wales Branch of the British Medical Association.)

STREPTOTHRIX INFECTIONS, WITH SPECIAL REFERENCE TO THE PULMONARY FORM.

By Sydney Jamieson, M.B., M.R.C.S., Hon. Physician and Hon. Director of the Pathological Department, Sydney Hospital.

THE subject of mycotic infections (i.e., the invasion of the human body by organisms closely allied to the moulds) is one not only of pathological importance but also of great clinical interest, on account of the relative frequency with which such cases occur and also on account of the amenability of some cases to treatment by appropriate doses of iodide of potassium. Having within the last three or four years had the good fortune to meet with three cases of streptothrix infection in my practice, I thought the subject a suitable one to bring under your notice at this meeting. Before entering more fully upon the subject it would perhaps be as well that I should first of all explain to you what I mean by a streptothrix infection. To put it briefly, the term is synonymous with what till quite recently was known as actinomycosis, and although this term has not yet been completely discarded, yet the great majority of pathologists are now applying the term streptothrix infection to this condition as being more scientifically accurate.

From the time of its first description by Bollinger till quite recently it was thought that the condition was produced by a single well-defined species of micro-parasite known as the actinomyces bovis, on account of the frequency with which it attacks bovine animals. Within the last few years, however, in the light of more complete research on the subject, it is now proved that the infecting organism is not the same in all cases. On

the other hand, it is now a well-attested fact that this condition is produced by a considerable variety of organisms all of which are species or varieties of a large group or subdivision of the hyphomycetes or mould fungi known as the streptothricæ.

Anatomical lesions produced by the introduction of the parasite within the body.—Although the nature of the infecting agent is not the same in all cases, yet the pathological changes produced by its presence are fairly uniform. Briefly put, the lesion consists of a mass of granulation tissue produced as the result of the reaction of the organism to the presence of a foreign organised body. The areas of granulation tissue may vary considerably in size, and by the fusion of adjacent granulomata, large tumour-like masses may result. Sooner or later a certain amount of softening ensues in the mass and results in the formation of a puriform substance containing suspended in it small granular bodies about the size of pinheads, consisting of masses of the mycelium of the streptothrix. In some cases where the resistance to the inroads of the organism is marked, there is produced around the mass a zone of connective tissue, and this is particularly well seen when the disease affects the liver in the human subject. Occasionally giant cell formation is seen, and the resemblance anatomically to the lesion of tuberculosis is most marked, both clinically and pathologically. There are, however, certain well-marked differences between the lesion seen in tuberculosis and that seen in a streptothrix infection. The most important difference consists in the fact that the usual mode of spread in a streptothrix infection is by *direct continuity, regardless of all anatomical boundaries*, and this point is of the greatest importance clinically, as when the disease has lasted any length of time in the lung, liver or elsewhere, it always spreads to and involves neighbouring organs and tissues, and finally, as a rule, ulcerates through to the surface of the body, leaving fistulous tracts and sinuses. In tuberculosis, on the other hand, this is seldom seen, for tuberculous lesions of the lung, for example, rarely ever pass by *direct continuity* from one lobe to another of the same lung, and much less do they pass through the pleura and ultimately discharge on the surface of the body. There are other minor points of difference between the two conditions; thus, in streptothrix infections the lymphatics and

lymphatic glands are rarely affected, the lesions are highly vascular, and a fatty and granular degeneration of the cells of the granuloma and giant cell formation is a rare occurrence. In the tuberculous infection, on the other hand, the lymphatics and their glands are almost always affected, the lesions are more or less avascular, being rendered so by proliferative endarteritis, and coagulation necrosis and caseation of the cells with giant cell formation are usually present.

Clinical types of the disease and its distribution throughout the body.—From an analysis of 1094 cases made by Rührhah in 1899, the incidence of the disease in the various organs and tissues of the body was as follows:—Head and neck, 56 per cent. (about); digestive tract, 20 per cent. (about); pulmonary, 15 per cent. (about); skin, 2 per cent. (about); doubtful, 6 per cent. (about).

It is in cases affecting the lungs that a clinical classification into types is of value, and such cases may be divided into four groups:—(1) *Bronchitic*, where the disease affects the bronchi alone; (2) *broncho-pulmonary*, where the disease involves both bronchi and pulmonary tissue; (3) *pleuro-pulmonary*, where the pleura is also involved, and a condition resembling empyæma is often seen; and (4) *miliary, or hæmic form*, in which a general metastasis throughout the body takes place, much resembling acute tuberculosis. The lung may become infected in one of these modes, either (a) by the blood stream, (b) by direct extension from neighbouring viscera, or (c) it may be air-borne. It is, however, by the air passages that infection is carried in the vast majority of pulmonary cases, and many cases are reported as having occurred in harvest time, especially among those connected with threshing.

Although the title of this paper covers the whole realm of streptothrix infections, yet it is especially to the form attacking the lungs that I wish to draw attention, as it is the form which is most difficult to diagnose and which is most frequently diagnosed as pulmonary phthisis. Before entering upon the question of differential diagnosis between this condition and that of ordinary phthisis, I would like to make some remarks upon a case of the pulmonary form of the disease which came under my notice.

R.C.D., aged 42 years, employed in the capacity of accountant in the head office of one of the large banking institutions of

Sydney; had been employed in this fashion for upwards of 30 years. The only way in which he could have possibly become infected by the disease (*i.e.*, if grain be accepted as the source of infection) was in this wise. During the latter years of the great drought the bank had occasion to obtain some consignments of wheat from the Argentine Republic, and it fell to the lot of my patient to inspect these shipments. He remembered having chewed some of the grains of wheat on one or two occasions, and that, as far as can be ascertained, is the only instance of actual contact with a possible source of infection with which he was acquainted. He first consulted me on November 10th, 1903, and his complaint was of pain in the left side of the chest behind. This pain was somewhat aggravated by deep breathing. In addition, he had a cough, which troubled him only in the early morning, and occasionally he had been troubled with night sweats. Of late he had lost flesh to some extent, and was sensible of a decided loss of energy. His general condition was one of marked pallor, together with some emaciation. Temperature, 99° 5' F.; pulse, 96; respiration, 22 per minute. Family history revealed no fact of importance, there being a complete absence of any chronic pulmonary affection on either the paternal or maternal side of his family. His habits, both as regards food and alcohol, showed nothing to which any exception could be taken. His occupation enforced upon him habits of a somewhat sedentary kind, and, with the exception of a little boating occasionally, he took little or no exercise. Prior to his present illness he had enjoyed the best of health. *Present illness.*—In June, 1902, while bathing in the harbour he was suddenly seized with pain in the region of the base of the left lung. He regarded it as due to a strain, and paid no special attention to it. The pain lasted for a few days only and then disappeared, but in September of the same year he was confined to bed by an attack of pleurisy on the left side. He remained confined to bed for two days, and then returned to his work, but ever since then has had more or less pain in his left side. In May, 1903, he was told by his medical attendant that his left lung was affected and that he was much run down. During the succeeding two months the pain was somewhat worse and was accompanied by cough and steady loss of flesh. In July, 1903, acting on the advice of his medical attendant, he went for a trip

along the coast of North Queensland, and was absent from home some six weeks. In general health the trip seems to have caused some improvement, but the cough still persisted and was occasionally accompanied by slight hæmoptysis. In October, 1903, he sought advice from another physician, and was told by him that he was suffering from an active tubercular lesion of the left lung. In November of the same year I saw him for the first time, and his general condition then was as already stated. On further and more careful examination it was noticed that in addition there was some impairment of movement of the left half of the chest, and the percussion note in this region was relatively dull as well as in the left supraspinous fossa. The breath sounds over the left apex were of the cogwheel type, and somewhat harsher than normal during expiration. From the fifth rib downwards there was almost complete absence of breath sounds. Thinking that fluid was present, an aspirating needle was inserted between the seventh and eighth ribs in the posterior axillary line, but with negative result. The sputum was of the "mummular" type and very copious. It was stained in the usual way by the Ziehl-Neelsen method, with aqueous methylene blue as a counter stain, on several occasions, but on all gave a negative result as far as tubercle bacilli were concerned. It showed, however, a considerable number of long chains of cocci, and I was inclined to believe that the case was one of infection of the lung by streptococcus longissimus, a condition described by certain German authorities as closely resembling phthisis pulmonalis, but of exceptionally acute type. In all I must have examined between 20 and 30 films of the sputum, but on no occasion did I find a single tubercle bacillus. He was then advised to take a prolonged holiday inland on the Western tableland, and was fully instructed as to the value of leading an out-of-door life both by day and night. He went to Orange and remained there for four weeks only, and while there gained weight and was less troubled by the night sweats. During his absence in Orange, however, he was greatly troubled by attacks of nausea and vomiting at times, especially after a bout of coughing. Thinking that a change to the mountains would be of greater benefit, he went to Katoomba, but finding that he was making no satisfactory headway he returned to Sydney shortly before Christmas, 1903.

During the month of January, 1904, he was at his work at the bank, but as he steadily got worse he decided to return to Katoomba. During the second stay at Katoomba his dyspnoea became much more urgent, and one or two attacks of hæmoptysis occurred. The weather on the mountains being rather cold and foggy he began to suffer from a severe aching pain in the left shoulder, which he regarded as being rheumatic in origin. This pain still continuing to trouble him, in spite of the application of rubefacients externally and salicylates internally, he once more returned to Sydney. On his return to Sydney he went to reside on the highlands on the north side of the harbour, somewhere in the neighbourhood of Turramurra, but while there he seemed to have made no substantial improvement. On March 21st, 1904, I saw him for the second time, and found him very much worse, generally speaking; but being still very much puzzled as to the exact cause of his condition I prevailed upon him to go into a private hospital so that I might get an opportunity of observing his case more accurately. On admission to hospital his condition was as follows:—The whole of the left half of the chest was almost completely motionless during respiration. His extremities were cold and clammy, his lips and finger tips were livid. From the fifth rib downwards on the left side the percussion note was *absolutely* dull and the breath sounds very distant and of a low-pitched tubular type. The physical signs being very suggestive of fluid, an exploratory needle was inserted between the seventh and eighth ribs in the middle line behind, but with no other result than the production of a transient attack of hæmoptysis. The substance through which the needle passed did not, however, give the sensation of being of a solid nature. The sputum was once more examined, but the result was again negative as regards the presence of tubercle bacilli, but the same long chains of streptococci were found. About a week after admission a slight oval swelling appeared over the left sixth rib in the anterior axillary line. This swelling was very tender to touch. The temperature at this time varied between 99° F. in the morning and 101° F. in the evening, and the pulse between 90 and 100 per minute. The respiration varied very considerably in frequency, viz., from 20 to 39 per minute. This swelling gradually became larger, and on April 10th an incision was made over it,

when a pint of thick, light green, tenacious slimy-looking pus, with a horribly foetid odour, escaped. This pus contained scattered all through it numerous small fluffy-looking masses about the size of pinheads and of a dull whitish colour. In consistence these bodies were quite soft, and were readily spread when pressed between two microscopic slides. After the removal of the fluid there was a marked diminution of the area of dullness, but the percussion note was still relatively dull, and the breath sounds more distinctly tubular in type. A portion of the wall of the abscess cavity and some of the pus was collected for examination. During the remainder of his stay in the hospital several other abscesses appeared over the ribs covering the dull area, and were severally dealt with by incision. On one occasion a portion of one of the ribs was excised so as to provide efficient drainage, and at this operation it was found that the subjacent lung was much infiltrated and sclerosed. The evacuation of the pus led to considerable improvement in his general condition, and this was further increased by the administration of iodide of potash in milk in doses of from 10 to 40 grains thrice daily. The improvement in his general health under the administration of iodide was such as to lead me, at one stage, to hope that cure might be effected. Another procedure which seemed to be productive of much good was the packing of the wounds with iodoform powder after the various incisions above referred to. Had the administration of iodide been commenced at an earlier period I firmly believe that the issue would have been favourable. As it was, however, the patient after a time relapsed, and eventually died in the latter part of last year.

Microscopic examination of the pus and of the portion of abscess wall.—(1) *Pus.*—One of the small fluffy masses was picked out, spread upon a slide, and stained by Gram's method. It was then found that they were made up of filaments of mycelium of a streptothrix, some of which stained rather faintly, while others stained deeply by the gentian violet, and showed numerous coccoid bodies in chain formation along the mycelial threads. A few short fat bacillary forms were also observed scattered through the pus. Having now become satisfied as to the streptothrical nature of the infection, the sputum was once more submitted to examination, but this time Gram's stain was used. It was now found

that what had formerly been regarded as streptococci in long threads were in reality the coccotrix threads of a streptothrix organism. When stained by the aqueous methylene blue the intervening parts of the threads between the various coccoid bodies failed to stain, and all that showed up was the coccoid bodies themselves, and hence arose the mistake of taking them to be examples of streptococcus longissimus. The sputum was also once more stained by Ziehl-Neelsen's method, but no acid-fast segments were observed.

(2) *The portion of tissue removed from the wall of the abscess.*—Some paraffin sections of this were stained by Gram, and counter-stained by aqueous eosin; others were stained by hæmatoxylin and eosin, and others again by Van Gieson's stain. The tissue was found to consist of a highly vascularised granulation tissue, having scattered through it numerous radially arranged mycelial masses. By means of the Van Gieson stain a distinct clubbing of the peripheral endings of some of the threads was noted. The Gram-stained sections showed the mycelial structure of the central portions of the masses more distinctly than the other two stains. Generally speaking the mycelial masses seen were identical in structure and appearance with those usually seen in bovine actinomycosis in every particular, except that the clubbing of the ends of the threads was not an obvious feature.

Biological characters of the organism separated in this case.—Some of the minute fluffy-looking masses in the pus were removed carefully, washed in several washings of sterilised distilled water, and inoculated into tubes containing the following media:—(1) Peptone broth; (2) glycerinated broth (3 per cent.); (3) agar; (4) glycerinated agar; (5) inspissated horse serum. For some days no appearance of growth was noted in any of the media, but on the fifth day some minute, greyish-white, flocculent-looking masses, about the size of pinheads, were observed in the depth of the glycerinated bouillon. These masses grew but slowly, and as they did so, tended to fuse together into a more or less confluent mass, the centres of the originally separate masses becoming somewhat more opaque than their peripheral portions. No growth was observed in any of the other tubes. The growth thus separated was then inoculated upon a great variety of media, including some containing sugars of various kinds.

The media used was as follows:—(1) Peptone bouillon; (2) maltose bouillon (3 per cent.); (3) glycerinated bouillon (3 per cent.); (4) glucose bouillon (3 per cent.); (5) agar; (6) maltose agar; (7) glycerinated agar; (8) glucose agar; (9) inspissated horse serum; (10) gelatine; (11) potato; (12) carrot. On all of these media, growth (which in the original first culture was feeble, and obtained only in one out of five separate media) took place, but it was invariably most luxuriant on the various sugar-containing media.

The descriptions which follow refer to the growth at room temperatures (varying between 11° C. and 17° C.) during the month of May. Growths were also made at 37° C. in the incubator, but were only slightly more rapid than those described. Daily observation of the rate and character of the growth upon each of the media were made, and the following is a summarised statement of the appearances noted during a period of twenty-eight days:—

Bouillons.—Growth occurred in all the varieties of bouillon employed, but most luxuriantly and freely in those containing sugar. Growth was best in maltose bouillon, next in glucose bouillon, next in ordinary plain bouillon, and least luxuriant in glycerinated bouillon. Although no growth occurred in ordinary bouillon in inoculation from the pus directly, yet within 48 hours growth was observed in this medium in subcultures. It occurred in the depth of the fluid in the form of distinct and separate flocculent white masses about the size of pinheads. No growth took place upon the surface of the medium. After growing for some days the masses became less and less flocculent, and assumed a dirty white appearance, some of them showing dark specks in their centres. In no instance was the colour of the bouillon altered. In maltose bouillon the growth was most luxuriant, and in the course of three weeks almost the whole of the medium was filled with growth almost to the surface. In glycerinated bouillon the growth was decidedly more restricted in amount; the colonies in this medium showed a tendency to remain quite discrete, and did not assume the dull white appearance above described. In glucose bouillon the growth was more luxuriant than that seen in glycerinated and ordinary bouillon, but less so than that observed in the case of maltose bouillon.

Agar inoculations.—Growth occurred in all of the agar media inoculated, but, as in the

case of the bouillon cultures, it was most abundant on those containing sugar. In the *plain agar* slopes it appeared on the second day in the form of a small heaped-up mass of greyish-white colour, and in form resembling a miniature loaf of bread. Within 24 hours its whole surface was covered by small, white, spike-like filaments, growing upwards and giving the growth an appearance like that of a hedgehog. In a very short time the outermost portions of the outgrowth became of a snowy-white colour, and this gradually spread till by the fourteenth day the whole surface of the growth looked as though it were covered by a delicate layer of cotton-wool. Before the end of the month, though, this woolly appearance had entirely disappeared, and the growth now assumed the appearance of a miniature conical hill surrounded by radially arranged and alternating hills and valleys. No discolouration or liquefaction of the medium was observed.

Maltose agar.—Proved to be a very excellent medium for the growth of this organism. The growth on this medium was the same as that seen in plain agar, but it was more rapid and more extensive. There was, in addition to the surface growth described, a down growth of long filaments into the medium both in this and in the plain agar growth. By the end of the month the mass was quite smooth for the most part, and of a dirty, ivory white, waxy appearance. No liquefaction or discolouration of the medium was observed. On glycerinated agar growth was much slower and more restricted in area. In other respects it resembled that already described for the other agar media. Glucose agar proved to be a very good medium, and the changes observed were similar to those in the case of maltose agar, and almost as extensive.

Inspissated horse serum.—By the second day a small, stunted outgrowth of a dirty yellowish-white colour and with smooth, waxy surface had appeared. A few spikes appeared on the surface on the following day, but these disappeared in the course of a few days, and were not followed by any "inflorescence." The growth remained very limited throughout, and produced neither liquefaction nor discolouration of the medium.

Gelatine.—Growth on this was both rapid and extensive. By the end of the second day a good growth, with radial striation, was apparent, and upon its surface were numerous aerial outgrowths. A marked down growth

into the substance of the medium was also apparent. By the third day the medium in the immediate vicinity of the growth was observed to be undergoing a softening process, and this progressed till by the end of the tenth day a considerable amount of the medium around the growth was liquefied. This caused the growth to run down over the surface of the medium, and resulted in the medium becoming inoculated at a lower level. By the end of the third week the whole of the upper half of the contents of the tube were liquefied, and the growth had sunk down through this and was resting upon the surface of that portion of the medium which still remained solid.

Potato.—On the whole this was a very satisfactory medium. In appearance it went through the changes already described in connection with the agar growths. Ultimately, however, it assumed a dirty, ivory-white appearance, and the surface became highly convoluted, resulting in an appearance closely resembling that seen in the surface markings around the burrow of an earthworm.

Carrot.—This vegetable (and beetroot) was found to be a very suitable medium for the growth of this organism. The changes gone through were the same as in the other media above described. The snow-white inflorescence which ultimately replaced the aerial growth was particularly well seen. The growth at the end of the month resembled that seen in the case of the potato.

Chemical reactions of the media after a month's growth.—In the case of the maltose and glucose agar media the reaction at the end of the month was decidedly acid, the glycerine agar was slightly acid, while the reaction of the various bouillon cultures was faintly alkaline.

Resistance to heat.—Cultures one month old were exposed to temperatures varying from that of the incubator (37° C.) to 75° C., and the thermal death point was found to be between 60° C. and 62° C.

Pathogenicity.—This was only tested after the organism had been sub-cultured a good many times, and had assumed more or less saprophytic characters. Had the inoculation been made shortly after its first removal the results would no doubt have been different. Inoculations were made into three guinea-pigs—one intra-peritoneally, one subcutaneous, and another into the trachea—but in all cases with a negative result.

I am indebted to Professor Welsh for affording me the opportunity of testing the pathogenicity of the organism.

Staining reactions.—In none of the cultures during any time were any acid-fast segments observed. The organism stained brilliantly by Gram's method. I have gone into the biological characters of this organism very fully, as, so far as I can ascertain, it is a new variety of streptothrix. I can find no description of a similar organism in any of the literature upon the subject which I have had the opportunity of consulting.

Microscopic characters of the growth.—Briefly speaking, the main mass of the growth (especially when grown for some weeks) consisted of varying lengths of mycelium, some of which stained deeply by Gram's method, while other portions showed little or no staining at all. Mixed up with the mycelial portions were numerous circular and ovoid coccoid bodies, which stained deeply by the Gram stain. Occasionally one would find similar coccoid bodies within the threads of the mycelium, and again in places they were seen to be attached to the mycelial thread by a delicate, almost invisible process. In old cultures the powdery surface of the growth was found to consist of these coccoid bodies alone. It was also found that the alteration in the surface of the growth to what was described as an appearance as though it has been covered by a layer of delicate cotton-wool, was coincidental with a breaking up of the outlying portions of the mycelium into shorter and longer lengths and the occurrence within some of these of a condition known as chain sporulation. In hanging drop cultures grown for two to three days, and then fixed to the cover glass and stained by Gram and eosin, the formation of mycelial filaments by outgrowths from the coccoid bodies was completely demonstrated.

Remarks upon the case.—This case illustrates in a marked manner the points which are of importance in differentiating between these cases and those of ordinary pulmonary phthisis. As far as symptoms and physical signs are concerned it will readily be seen how difficult, nay, even how impossible it is to distinguish such a case from one of ordinary phthisis. This patient presented all the usual symptoms and signs which one is accustomed to find associated with pulmonary phthisis, viz.:—Chronic cough, emaciation, night sweats, hæmoptysis, intermittent

pyrexia, and destructive changes in the lung tissue.

The chief means whereby a differentiation of the two conditions may be brought about are:—

1. In streptothrix infections the lesion is more commonly situated in the base of the lung, whereas in phthisis, as we all know, it is the apex that is most frequently first affected. Instances are, however, occasionally seen when the initial lesion is apical, and in the case in point, the lesion, at any rate, involved the lung in the neighbourhood of the apex at an early stage of its course. A basal situation of the initial lesion should make one suspect the presence of a streptothrix infection.

2. In streptothrix infections the disease always tends to spread by direct continuity, irrespective of anatomical boundaries, and so in course of time ulceration through to the surface takes place as in the case just reported.

3. *Excavation of the lung tissue* does not occur to any extent, but rather a consolidation with infiltration by the streptothrix granulomata. As a consequence thereof, hæmoptysis is of comparatively rare occurrence, even though the granulation tissue is very vascular.

In my case hæmoptysis was quite a marked feature.

4. *Pleuritic pain* is often a marked phenomenon, and is said to be exceptionally severe. It was not so in my case.

5. *Temperature.*—This is more irregular in type in streptothrix infections than in ordinary phthisis, and is, as a rule, of lower range.

6. The chief, and by far the most important diagnostic sign is to be found in the examination of the sputum, and the most useful stain to employ for this purpose is Gram's. *In all cases of chronic pulmonary affection where the physical signs are suggestive of phthisis, but where examination of the sputum on several occasions fails to reveal the presence of tubercle bacilli, the sputum should be stained by Gram's method and a systematic hunt made for filaments of a streptothrix.*

The use of tuberculin as a diagnostic agent in such cases is of little or no value, for two reasons:—

1. There is usually already a pyrexial condition existing, and

2. Several observers have noted a positive reaction to tuberculin where a streptothrix infection alone was found.

In a case at present under my care at the Sydney Hospital an injection of one-fifth of a milligram of old tuberculin always results in a markedly positive reaction. In this case, however, it is quite possible that some quiet focus of tuberculosis is present in the body.

I would like to mention the details of two other cases of streptothrix infection, but time will not allow of my doing so, but I hope soon to have an opportunity of publishing the cases. My reason for bringing this condition under your notice is because I am convinced that these infections are very much more commonly met with than one is led to suppose. Many such cases are undoubtedly classed as ordinary phthisis, and it is with the view of pointing out how they may be distinguished therefrom that I have brought this subject under your notice.

In conclusion I desire to thank you for the honour you have conferred on me by inviting me to address you, and I hope that I have succeeded in interesting you in a subject which has hitherto been regarded as one of the rarer of pathological conditions met with in practice, but which I feel sure is much commoner than is generally thought.

(Read before the Western Medical Association at Orange.)

SOME ASPECTS OF SPINAL ANÆSTHESIA.—A REVIEW OF RECENT LITERATURE.

By F. Hinrichsen, M.D., Toowoomba (Q.)

THE discussion of spinal anæsthesia has, during recent years, occupied a broad field in surgical literature. By reducing the quantity of the injected poison by the addition of adrenalin or similar preparations, and further by using instead of cocaine its less toxic substitutes, alypin, novokain, tropococaine and stovain, this method of anæsthesia has undoubtedly been deprived of much of its previous danger. The improvement in technique—due largely to the assiduous work done by Bier, Tuffier and many American surgeons—has rendered the method much more reliable, the cases in which it fails having been considerably diminished. So, in the newer literature on this subject, the more critical judgment is found to be outweighed by favourable and even enthusiastic opinions. It would not certainly be fair by simply reckoning the percentage of the casualties and comparing this with the corresponding percentage of the inhalation narcosis, to estimate the value

and the danger of a method which is still young, and the technique and indications of which are not yet sufficiently established. Again, the splendid course of the anæsthesia in a great majority of cases should not induce us to overlook the unfortunate experiences recorded just lately by several writers. Facing these last, and recognising their causes as far as it is at present possible, we shall be able to form an adequate opinion of the extent to which the dangers connected with the new method can be avoided. On the answer to this question our valuation of the method will largely depend. Therefore a critical review of its deficiencies, as recorded in recent literature, will be of interest.

One of the greatest drawbacks connected with spinal anæsthesia has always been the uncertainty of the method. In some cases anæsthesia did not occur at all; in others it was only semi-lateral; in others, again, it did not occur at the desired level—at the pelvis, for instance, instead of at the knee or at the abdomen. This depends on the distribution of the injected fluid in the dural cavity.

Now, Dönitz points out that the fluid is distributed according to simple mechanical and anatomical conditions. According to him there is a space in the middle line between the fibres of the cauda equina, called by him "cysterna medullæ." When the liquid is injected into this cysterna, it will be symmetrically diffused; but if the puncture needle deviates into the fibres of the cauda, which contain between themselves small capillary spaces, the liquid by capillary attraction will be moved upwards on the one side only of the medulla. In order to avoid this and to meet the cysterna medullæ, Bier and Dönitz recommend puncturing between the second and third lumbar vertebrae, exactly in the middle line, and pushing the needle till the "liquor cerebrospinalis" pours out in a jet. This is a certain sign that the needle is at the right place. The injection must not be performed before this happens; simple *dropping* of the "liquor" is not sufficient—a real *out-pouring* is necessary. After injection, anæsthesia may be induced in the higher parts of the medulla—as high as is desired—by putting the patient in the Trendelenburg position till the liquid, attracted by gravity, passes to the desired region.

By carrying out every detail, as described, it has been found possible to diminish con-

siderably the number of failures, but not to entirely abolish them. There is only one account of entire success (that of Kindirjy, with 204 cases) ; in all other published records the number of the failures fluctuates from 4 per cent. to 15 per cent. Beside the failures which followed a properly-performed puncture, it was found that, in some few cases, the puncture could not be made at all. Ossification of the vertebral ligaments was assigned as a reason for this impossibility.

Another difficulty arises from extraordinary obesity—two to three inches of fatty tissue over the spinous processes. This may be overcome by an incision under local anaesthesia.

The puncture being successfully made, anaesthesia will set in after five or ten minutes. At the beginning, now and then, nausea and slight vomiting are experienced. More often symptoms of a slight collapse occur, paleness of the face, cold perspiration, feeble pulse. But these symptoms soon pass away and seem to bear no serious significance. Far more serious, however, are the disturbances of the respiration ; these may, indeed, lead to a very critical situation. Apparently these disturbances do not often occur ; nevertheless I am able to collect from recent publications four instances of longer or shorter cessation of respiration.

Twice (Greiffenhagen, of Reval) the stovain dose injected was too large. Artificial respiration had to be resorted to, once for 10 minutes and another time for 20 minutes. In a third case (Sandberg, Bergen), also, the toxic dose of stovain—one grain—was overdone, and, moreover, the anaesthetic, by means of Trendelenburg position, was carried too high in the spinal canal. For 25 minutes artificial respiration had to be carried on. In the fourth case, Bier, of Bonn, injected 0.04 cubic centimetres of stovain, and brought it high up in order to perform a nephrectomy. The symptoms this time were not very alarming, the operation not being interrupted. After five minutes' artificial respiration the patient could breathe spontaneously. The cause of these disturbances is to be found in stovain paralysing the motor nerve apparatus of the diaphragm and the other respiratory muscles as soon as it comes in contact with these nervous elements, just as it paralysis the motor nerves of the lower extremity if applied only at the lower part of the spinal canal. To avoid such casualties

great care in dosing will be necessary ; further the use of the Trendelenburg position requires a careful observance of the moment when the anaesthesia rises so high as to become dangerous to the function of the vital nervous centres. If anaesthesia in the upper part of the body is required, the use of tropococaine has been recommended, this drug affecting the motor nerves less than the other substitutes of cocaine. By its use Bier could perform operations on the neck and even on the face.

Respecting the after effects of spinal anaesthesia all reports agree that they are far more rare than those of the "inhalation anaesthesia." Often there are no after effects at all. The whole course of spinal anaesthesia in a successful case is reported to be astonishingly favourable. Most patients who have undergone both kinds of anaesthesia, and so are able to draw a comparison, prefer by far the "stitch into the back." But in those comparatively few cases where after effects occur at all, these are often grave and persistent, and such as we are not accustomed to observe after ether or chloroform anaesthesia. Stiff neck and severe headache are only the minor troubles, although the headache has sometimes lasted longer than six weeks.

Far more serious are the different forms of paralysis. These occur, as mentioned, partly during anaesthesia ; paralysis of the respiratory muscles, and of the inferior extremities, partly seven to thirteen days after that, and then (according to observations made hitherto) concerning only the eye muscles—abducens and trochlearis. Five cases of this kind have lately been published.

(After finishing this report I find the following additional cases published by Lang in the *Deutsch Med. Woch.* :—After injection of novokain, twice paralysis of the ocular muscles ; healed spontaneously in about 10 days. After injection of stovain, paralysis of the peronei ; restored after 12 weeks, and permanent atrophy of the right thenar.)

These are the more innocent forms of paralysis, restoration always occurring after a few weeks. It could be doubtful if they are the consequence of the lumbar puncture, connected with the loss of *liquor cerebro-spinalis*, or of the injected poison. But since previously, after simple lumbar puncture such symptoms have never been observed, they have to be regarded as effects of the poison, and they have occurred, it should be noted, after using stovain as well as after the

use of novocain. The same casualty, of course, applies to paralysis occurring previously during anaesthesia. Such paralysis mostly passes away quickly with the end of the analgesia; but sometimes it has lasted longer—for weeks even—and in one case restoration never occurred; but the death of the unfortunate person ensued under the terrible symptoms familiar in lumbar vertebral fracture. This case needs to be fully reported, as it is of decisive importance for the valuation of the method.

A man of 35 years of age had acquired, during drunkenness, a fracture of his patella. He was brought to the hospital in Altona, under the care of Professor Fritz König. Seven days after the accident, for the purpose of suturing the patella, a lumbar puncture was made between the third and fourth lumbar vertebræ. A little "liquor," pink coloured, dropping from the needle, 0.06 cc. of stovain were injected. After 15 minutes, complete analgesia took place, and, at the same time, paralysis of the bladder, rectum and lower extremities. These organs never after resumed their functions. The man died three months after the operation. Post-mortem showed softening of the dorsal and lumbar medulla. What was the cause of this sad issue? An infection of the dural cavity and the medulla can be excluded by the whole course of symptoms, such as the sudden setting-in of paralysis, the wide paralysed area, no progress of the same, no meningitis. *The poisonous effect of stovain* must, therefore, be held responsible. The pinkish colour of the liquor cerebrospinalis, according to König's opinion, suggests the idea that, in consequence of the accident, the medulla may have met with a minor lesion, which presented a "*locus minoris resistentiæ*," to the poisonous effect of stovain. Possibly the chronic alcohol intoxication affected the medulla in such a way as to offer less resistance to the injected poison. An entirely satisfactory explanation cannot be given. A further investigation has been made which may perhaps throw more light on the matter.

The other fatal cases contained in the reports of the last two years do not require an exhaustive account. There are six cases. Two of them died from puriform meningitis (observed by Sonnenburg, of Berlin), both patients being pyæmic previous to operation. Slight symptoms of irritation of the meninges—stiff neck, backache, headache, slight

rising of temperature—have often been mentioned by several writers, and have been regarded as signs of an aseptic meningitis produced by irritation of the injected foreign body. On the ground of this affection in both the pyæmic patients a purulent meningitis may easily have developed.

The method, however, can hardly be charged with the two following cases:—One subject died about 10 hours after an operation on the bone, most likely in consequence of embolism of fat. The other, a person suffering from peritonitis, extremely worn out and too weak for general narcosis, died during operation, the issue in this case being due more to the disease and to the operation than to the anaesthetic.

Lastly, there were two fatal cases caused by paralysed respiration, which set in a few minutes after injection of the anaesthetic. Once the dose of tropococain was 2.6 times exceeded. In the other case, the writer believes that the needle was pushed forward too much, and that thus the anaesthetic was injected not into the posterior part of the spinal canal, containing the sensitive elements, but into the anterior part separated from the former by the "*ligamenta denticulata*," and here the motor respiratory centre was reached.

This explanation seems rather far-fetched. Obviously, the *ligamenta denticulata* do not represent a watertight separation between the anterior and posterior part of the spinal cavity, as presumed in the explanation, since in the successful spinal analgesia, too, in spite of the *ligamenta denticulata*, paralysis of motor nerves occurs. In this case the Trendelenburg position was used, and the anaesthetic may possibly have risen rather too high and so caused the fatal issue.

Considering this series of casualties to be rather considerable in number and variety, everything respecting the valuation of the method will depend on the question whether it will be possible in future to eliminate its dangers. Concerning the majority of the cases mentioned, this question can be answered in the affirmative. The injection of too large doses has to be avoided. By keeping strictly within the toxic limit serious accidents have not been experienced. If, nevertheless, anything serious should intervene, it might be possible to remove a part of the introduced poison by making a second lumbar puncture. Recognising the danger

of purulent meningitis, pyæmic patients should be excluded from this proceeding.

Further, serious disturbances of respiration may probably be avoided by carefully watching the ascending analgesia, and, in case of emergency, by promptly starting artificial respiration.

Quite another feature is presented by paralysis of the lower part of the body. This serious complication will, for a long time to come, most likely remain an important objection to the use of the method, unless it be possible to evade this danger with certainty.

To-day we must confess our inability to see clearly under what conditions this paralysis occurs, and under what circumstances it is, or is not, restored. Some hopes are based on the fact that tropococain does not very much affect the motor nerves; but we have yet to learn how far these hopes will be verified by further experience. At present we are not sufficiently well informed with regard to the necessary details, and, considering this, we must declare that spinal anæsthesia is still in the experimental stage, and cannot, therefore, be recommended for general use.

CLINICAL AND PATHOLOGICAL NOTES.

A TRYPANOSOME FOUND IN THE RIVER

MURRAY TURTLE (*Chelodina Longicollis*)

PROVISIONALLY named Trypanosome *Chelodina*. (Specimens have been sent to Laveran and Mesnil for confirmation.)

Last June I received a turtle from Morgan, River Murray. I made blood films by incising the tough skin of the left leg and pricking a small vein. On examination of the blood several "strange things" were noted, but the most interesting was a trypanosome. In every film at least one or two trypanosomes are present. It is larger than the red nucleated discs and very difficult to accurately measure on account of it being always bent in the form of a half circle in stained specimens. But as far as I was able to roughly measure, I made it to be 14μ long by $1\frac{1}{2}\mu$ wide, and if the undulating membrane be measured then it was from $2\frac{1}{2}\mu$ to 3μ wide. There did not appear to be a long free flagella, not more than 2μ in the specimens I examined. In the middle of the protoplasm of the body appears a large vacuole, the protoplasm stains an intense purple with Leishman's stain, and towards

both ends it abruptly ceases, a few deep-staining large granules taking its place. The centrosome is placed about a third of the distance from the centre to the posterior end and the nucleus between it and the centre. The flagella was fringed, and ended at the centrosome; it was on the convex side of the parasite. The undulating membrane took on a deep stain. 1857. Leydig found flagellates, with an undulating membrane, in the alimentary canal of an acarian ecto-parasite of the turtle (*Ixodes testudinis*), and without being able to further prove it, he concluded naturally that they were present in the turtle's blood. Laveran and Mesnil found a trypanosome in *Damonis Reevesii*, an Asiatic turtle, which they named *Tryp. Damonis*. It was 32μ long, and had a flagella 36μ long. At Cape St. Marie two sea turtles were examined, and in their blood were two trypanosomes, one short and one long. They have not been cultivated in vitro. A further and fuller description will be made in January at the Science Congress.

E. ANGAS JOHNSON,

Adelaide.

M.B., B.S. (Adel.).

REVIEWS AND NOTICES OF BOOKS

THE DIAGNOSIS OF NERVOUS DISEASES. By Purves Stewart, M.A., M.D., F.R.C.P., Physician to Out-patients at the Westminster Hospital, and Joint Lecturer in Medicine in the Medical School, etc. London: Edward Arnold.

There are books which it is a pleasure to read and a privilege to review, and of that scanty number is the volume before us. Dr. Purves Stewart's high reputation made us expect a book in keeping with his previous contributions to medical literature. This work fully justifies that anticipation. The outstanding feature from beginning to end is the practicality and everyday usefulness of the subject matter. The arrangement and method are original in many ways, and exactly fill the requirements of practitioners who want to keep abreast of the clinical advances in neurology. The chapters do not deal with separate morbid entities, as do most treatises on nervous disease. On the contrary, great groups of signs or symptoms are treated in a full, clear, suggestive manner, linking together the pathological cause with the clinical manifestation, and pointing out in what diseases such signs or symptoms are met with. The reviewer has not seen a more helpful classification, nor a more practical application of a knowledge of such morbid conditions in exact diagnosis. The book begins with a succinct, clear, and up-to-date account of the main points in the anatomy and physiology of the nervous system. This refreshment of the reader's anatomical and physiological knowledge is made more valuable by diagrams, most of which are excellent and to the point. One or two attempts to show too much, notably that of the sensory tracts from the cord upwards, and consequently

become rather confused. It is, on the other hand, a pleasure unreservedly to praise the diagrams and text dealing with the cutaneous areas of peripheral nerves, and the muscular localisation in the cervical engorgement and lumbo-sacral cord—a study which Dr. Stewart has made peculiarly his own. A good idea of the arrangement and scope of the book may be given by reproducing the titles of some of the chapters. For instance—Coma, Involuntary Movements, Aphasia, Postures and Gait, Reflexes, Angio-Neuroses. The last chapter is upon the Cerebro-Spinal Fluid—one of the most useful and suggestive. The organic significance of a large lymphocytosis of the cerebro-spinal fluid in old syphilitics as indicative of organic neural disease is properly insisted upon. Indeed, if our memory serves us right, Dr. Purves Stewart is himself a pioneer in this branch of inquiry, although he does not obtrude the fact. In the chemical examination of the fluid the observations of Guillan and Paraut are mentioned, and the precipitate found in cases of general paralysis after testing is called “characteristic”; but Dr. Stewart omits to tell the unlearned what it consists of, and in what it is characteristic. The reader should carefully study what is said, and said well, on the differences between hysteria and the organic lesions it may imitate. It is impossible in a short notice to fully set forth the really high merits of this most helpful manual; yet no notice would be complete without reference to the clear presentment of that most difficult subject, aphasia, nor ought one to pass in silence the admirable treatment of lesions of the cervical, sympathetic and the cranial nerves. In expressing approval of the way in which cranial nerve symptoms are dealt with, it seems fair criticism not to include in that commendation the explanation, or, rather, lack of explanation, of the classic Argyll-Robertson phenomenon.

The easy, simple solution of this symptom by degeneration of the fibres of Meynert, so long current teaching, may perhaps not have been demonstrated pathologically, and the researches of Marina Piltz and Bach make it now nearly certain that the lesion causing the phenomenon lies in the ciliary ganglion. Yet Dr. Purves Stewart quite fails here to present the subject in his usual clear, convincing manner. He has modified a diagram of Bach to illustrate the innervation of the pupil-reflex. This complicated picture we have regarded with prayerful solicitude through a powerful magnifying glass, and failed, we regret to say, to find clinical peace and instruction therein. Truly in this case we saw through a glass darkly. Two coloured plates representing the appearance of erythro melalgia influenced by posture are as good as any we have seen, with this caution that they are most true to nature if viewed in bright sunlight; in artificial light, in our judgment, they fall short of a true representation of this malady.

Taking the work in its entirety, we have no hesitation in saying that it is one of the most practical, suggestive and interesting publications on a difficult subject which has been published in recent years. Sir William Gowers' little brochure on the Diagnosis of Diseases of the Spinal Cord, published about 1881, was the stepping-stone by which the general body of the profession at that time gained a knowledge of and interest in spinal disease. By means of this work, may it also be fairly said, that later developments of clinical neurology are placed within reach of all who are wise enough to wish to know them—and that in a compact, clear form, which those who run may read.

HEART DISEASE AND ANEURISM OF THE AORTA, WITH SPECIAL REFERENCE TO PROGNOSIS AND TREATMENT. Fourth edition. By Sir William H. Broadbent and Dr. John F. H. Broadbent. London: Ballière, Tindall & Cox. 1906. Sydney: L. Bruck. Price, 12s 6d net.

It is seven years since the previous edition of this book was published. The present edition contains 474 pages, about 60 more than the third edition. It is hardly necessary to say much about the general characters of a book that has been before the profession so long, and which has met with so much favour as to reach the fourth edition within nine years of its first appearance. Chapters on the pulse, disease of the coronary arteries, bradycardia and atheroma of the aorta have been added. The sections dealing with the pulse and bradycardia are of particular interest at the present time. The authors are evidently not believers in the clinical value of the blood pressure instruments which have recently been introduced—a scepticism probably due to want of familiarity. The section on bradycardia is of little value. Not a single sphygmogram of the venous and arterial pulses in “syncope bradycardia” is given, although so many cases have been published in the last two years. The anatomical features of the auriculo-ventricular bundle are not described. In fact, we don't think that the book is at all up to date.

A HANDBOOK OF SURGERY. By Geo. Burnside Buchanan, M.B., C.M., F.F.P.S. (Glas.). Pages xv. + 547. Edinburgh: John Currie, 15 Standon Place. Price, 9s net.

The author's explanation for producing another book on surgery for students among so many excellent manuals in existence is that there appears to be a demand for a short handbook corresponding to the earlier editions of “Walsham”; students frequently being in want of a handy means for revising the surgery they have already learnt, before presenting themselves for examination.

It is further explained that the book under notice is necessarily to a great extent a work of compilation, and the textbooks and monographs chosen for this purpose are those accepted as being among the best standard authorities. The book is based on the scheme of the two English textbooks, Walsham and Spencer's “Theory and Practice of Surgery” and Treves “System of Surgery.” A handbook of surgery is necessarily condensed, and consequently is open to criticism on that account. Bearing in mind that the compass of the book only embraces 500 pages, the author may be said to have presented the general subject of surgery very effectively.

A FEW HINTS ON THE CARE OF CHILDREN AT SEA. By Samuel Synge, M.D., M.A.O., B.Ch. (Dub.). Pages 30. Medium 24 mo. Price, 1s net. London: John Bale, Sons & Danielsson, Ltd., Great Titchfield-street.

The author states that he believes there is no book on the care of children at sea, though there are several on the care of children under the ordinary circumstances of life. The suggestions are the choice of a cabin, the food for a child on board, necessary additions to the ordinary furniture of the cabin, to the toilet requisites, additions to the ordinary nursing drugs, hints with reference to making an early acquaintance with the head steward and stewardess, laundrying in cabin, etc. The little book is likely to be useful to mothers and nurses who are about to travel by sea with young children.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 21ST JANUARY, 1907.

THE VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE new year has opened most auspiciously for the profession in Victoria. As our readers are aware, the profession in that State has for years past been divided. The Medical Society of Victoria has been a powerful and influential organisation, which, however, has directed all its energies in the line of scientific and clinical work. Ethical questions have not been considered. Its official organ was the *Intercolonial Medical Journal*. Everyone must recognise the immense influence for good which this Society has exerted in the past and the highly valuable scientific work it has accomplished. The Victorian Branch of the British Medical Association, which some years ago gave promise of being a large and important society, has unfortunately languished considerably since the disruption over the O'HARA case in 1900.

It is therefore highly gratifying to learn that after what appeared to be insuperable difficulties an amalgamation has been effected between the Medical Society of Victoria and the Victorian Branch of the British Medical Association, and the new year opens with every prospect of a strong, united and influential Branch of the B.M.A. in Victoria. This happy consummation has only been accomplished in the face of what appeared to many to be insuperable difficulties, but these have, for the most part, vanished before the indomitable energy and perseverance of those who were determined

to secure this amalgamation. The Medical Society of Victoria possessed a hall and library, built upon a good site, a grant from the Crown. This was vested in trustees, and it has been found impracticable, except by special Act of Parliament, to transfer this property to the Victorian Branch of the B.M.A. Hence to retain this property a Medical Society of Victoria must still exist, if only in name.

A report of the meeting on December 19th, when the amalgamation was effected, and of the annual meetings of the two Societies, appears in another part of this issue, together with the result of the election for the various offices. Professor ALLEN, to whose legal knowledge and profound mastery of details much of the successful accomplishment of the amalgamation is due, has been elected President, and Dr. G. A. SYME and Dr. CUSCADEN (the late President of the Victorian Branch of the B.M.A.) have been elected vice-presidents. The secretary and treasurer held respectively the same offices in the Medical Society of Victoria. We regret, however, to note that none of the members of the late Council of the B.M.A. have been elected on the new one, which consists entirely of those who have been intimately associated with the Medical Society of Victoria. It is reported, however, that two members of the last Council of the B.M.A. were associated with the new organisation in the positions respectively of assistant treasurer and assistant secretary.

We cannot help thinking that it would have conduced more to the success of the amalgamation and to the establishment of completely harmonious relations had the new Council consisted of half of the members of the old Council of the B.M.A. and half of the Council of the Medical Society of Victoria. We regret, too, that the late secretary of the B.M.A.,

Dr. W. B. VANCE, who has worked hard for the past two years to secure the result we now rejoice to see, should be excluded from all official connection with the new organisation.

One important matter still remains for discussion. The complete unification of the profession in Australia requires the adoption of one strong medical journal. Upon this point we are all agreed, but the securing of that ideal demands some careful consideration, in the face of existing conditions. The *A.M. Gazette* has been for many years past the official organ of all the Branches of the B.M.A. in Australia; it has a larger circulation and the most influential position of any medical journal in Australasia, and we sincerely hope that the way may be smoothed for the adoption of this journal as the official organ of the re-constituted Branch of the B.M.A. in Victoria.

THE PROBLEMS OF SYPHILIS.

No disease exercises so powerful a physical, mental and moral influence over the human race as syphilis. Though known and studied for generations past it still remains in some respects a *terra incognita*. True, within quite recent times, the discovery by SCHAUDINN of the spirochæta pallida in recent syphilitic lesions, and the subsequent work of METSCHNIKOFF and ROUX, has pretty well proved what has long been suspected and believed, that the disease is really a germ disease. But the exact relation of this organism to the various pathological conditions which we know to be due to syphilis remains to be worked out.

It is easy to understand the inoculation of the organism, the subsequent development of the hard chancre, and the enlargement of the neighbouring lymphatic glands, just as we know the sequel of events after the inocu-

lation of the diphtheria bacillus; but to what are we to ascribe the development of the so-called secondaries? Are they due to a dissemination of the organisms through the various parts of the body usually affected, or are they due to the influence of a toxin absorbed into the system from the primary lesion and the affected glands? Both of these suppositions are possible and analogies with other diseases might be adduced in favour of one or the other; but it is useless to speculate on what will, no doubt, be definitely proved before long.

But when we come to consider what are called tertiary lesions we find still further difficulty in assigning the exact rôle which the spirochæta pallida plays in their development. The syphilitic gumma resembles pathologically the tubercular nodule—both are inflammatory tumours. We know that the tubercle bacillus is present in the tubercular nodules; is the syphilitic gumma, likewise an inflammatory reaction of the tissues, produced by the spirochæta? If so, where are these organisms retained latent in the system perhaps for several years? We know that the tubercle bacilli may retain their vitality when encapsuled in a fibrous or even a calcareous form in the lungs or in the lymphatic glands often for some years, but we are not familiar with any such foci in the case of syphilis, though they may exist.

Then the relation of syphilis to those diseases which we glibly speak of as para-syphilitic—tabes dorsalis, general paralysis of the insane, and Fournier's para-syphilitic epilepsy—has been and still is the theme of academic discussion. It is not possible here to enter upon that discussion, but we wish to draw attention to the difficulties which are involved in assuming that these diseases are due to a syphilitic toxin. How can we associate pathologically the development of a slight lesion due no doubt to the inoculation

of the syphilitic virus with the slow, insidious onset of a systemic degeneration of spinal or cerebral neurones, perhaps after an interval of twenty or thirty years, and with no symptoms and no obvious lesions which suggest the activity of the syphilitic spirochaeta? That the statistical evidence which has been adduced seems to prove conclusively that there is some connection between syphilis and the para-syphilitic diseases, so-called, must be frankly admitted; but the exact nature of that relationship remains one of the problems of syphilis, to be solved in the future by our pathologists and bacteriologists.

THE MONTH.

The Sanitary Condition of the Sydney General Post Office.

We desire to draw the attention of the Federal Postmaster-General to the insanitary conditions under which some of the employees of the Sydney General Post Office are compelled to work. The work of the parcel post is carried on in the basement at the George-street end of the building. The department is dark, requiring artificial light, the air is thick with dust and exhalations of all kinds, and there is no possibility under present conditions of any effective ventilation. These conditions, which are bad enough even in winter, become intensified in the heat of summer, especially at Christmas time, when all departments of the Post Office are working at high pressure, and also during the hot, muggy days so prevalent in Sydney during January and February. We believe it is the aim of the health officers to remedy every sanitary defect in public buildings, and in the interests of these Post Office officials we hope that, now that attention has been drawn to the matter, steps will be taken at once to improve the conditions under which these Government employees are compelled to work.

The Notification of Infectious Diseases.

The notification of cases of infectious disease is recognised as one of the most effective weapons in the hands of the Public Health authorities in preventing the spread of

disease, suffering and death in the community. Under the Public Health Act in New South Wales certain diseases have been proclaimed as notifiable infectious diseases, and it devolves upon the local authorities constituted under the Act to report the occurrence of cases of these diseases to the Board of Health. Failure to carry out these provisions of the Health Act by a local authority constitutes a grave offence. This was recognised on a recent occasion when the municipality of Parkes, as the local authority under the Health Act, was prosecuted, and the full fine inflicted for neglecting to notify infectious diseases as required by the Act. The prosecution was undertaken at the instance of the Board of Health because of the persistent neglect of this local authority to carry out the provisions of the Act and regulations in regard to the notification of cases of infectious diseases. In addition to failure of the local authority to properly carry out the law, it is stated that it also persistently failed to reply to letters of inquiry, advice, and remonstrance which the board had addressed to it in the course of the last two or three years.

School for Weak-minded Children.

It is recognised that in every community there are a certain proportion of children who are not imbecile or idiots, but who are yet mentally defective and unable to profit by instruction imparted in the ordinary school. Hitherto this class of children have been obliged to attend the ordinary schools, but in recent years special schools have been established for them in England and America, and these have shown most encouraging results. To meet this class of mentally defective and backward children in Victoria the Chief Secretary, Mr. Mackey, has decided to establish a special school for them in the Kew Asylum grounds. The Premier has authorised the expenditure of £1000 on the building, which will provide accommodation for about 80 children. The teachers are to be selected from the State schools' staff, and the aim of the teacher will be to form character, strengthen intelligence, and impart a certain amount of skill for useful work. We believe that this will be the first special school of this character in Australia, and it is to be open to any defective and backward children whose parents desire to send them.

Insanitary Forecastles.

The President of the New South Wales Board of Health (Dr. Ashburton Thompson) has recently furnished to the Premier a lengthy report dealing with some important questions raised by a deputation from the Sydney Labour Council which waited upon the Premier in April last. The deputation complained of the insanitary condition of the forecastle in some vessels and of the carriage of offensive cargo and animals on deck close to the forecastle. They urged that steps should be taken to provide better accommodation for all sections of the crew. Dr. Thompson's investigations have shown that the complaints in many cases are well founded, though on the whole the conditions under which the crews live are at least equal to the average conditions in other parts of the world. Dr. Thompson suggests the appointment of one additional sanitary inspector whose time should be devoted to the supervision of sanitary arrangements on ships. We hope that the suggestions made in this report will be carried into effect and that special attention will be paid to the ventilation of the sleeping accommodation for the crews.

A Victorian Inebriate Retreat.

The original proposal to erect an inebriate retreat at Royal Park, Melbourne, has been abandoned, the Cabinet considering this site to be unsuitable, as it would be too near old haunts and within view of hotels. Dr. Ernest Jones, the Inspector-General of the Insane in Victoria, has inspected another site for the proposed institution on the homestead block at Lara, which the Closer Settlement Board is proposing to sell by auction, and he has reported that the homestead is admirably situated for the purposes of an inebriate retreat. By the expenditure of not more than £1000 on some additions and alterations the house could be well adapted for the purposes of the proposed institution. It is, moreover, accessible to Melbourne, and, it is stated, has an excellent water supply—an important factor in the treatment of the unfortunate inebriate! The Cabinet has authorised the Premier to enter into negotiations with the Closer Settlement Board for taking over this homestead, with 600 acres. The farming of the adjacent land will afford suitable and healthy employment for the inmates, and should be of great assistance in their treatment.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

Victoria.

A SPECIAL meeting of the above Branch was held in the hall of the Medical Society of Victoria on Wednesday, December 19th; the President (Dr. Cuscaden) was in the chair.

The PRESIDENT announced that the meeting had been called to consider an addition to the rules as already circulated among the members, and that subsequent to the meeting the Council would elect as members of the Branch all members of the Medical Society of Victoria who had signed the necessary undertaking to abide by the regulations and by-laws of the British Medical Association and the rules of the Melbourne and Victorian Branch thereof.

The PRESIDENT moved the adoption of the rules already circulated, with the following addition to Rule 16: "Provided that no person shall be deemed to be a member of the Melbourne and Victorian Branch of the British Medical Association who shall not have signed an undertaking that he will abide by the regulations and by-laws of the British Medical Association and the rules of the Melbourne and Victorian Branch thereof."

The HON. SECRETARY explained that this addition was rendered necessary owing to the terms of a cablegram received from the parent Association.

The motion was seconded by Dr. LAURIE, and carried unanimously.

The HON. SECRETARY announced that he had received a telegram from Dr. W. H. Crago, of the New South Wales Branch of the B.M.A., congratulating members upon the successful amalgamation with the Medical Society of Victoria.

The members then joined the members of the Medical Society of Victoria who were meeting in the adjoining room.

The PRESIDENT of the Medical Society of Victoria (Dr. M. U. O'Sullivan) welcomed the members of the Branch, and expressed his pleasure at the successful outcome of the negotiations for the amalgamation of the two societies.

Dr. CUSCADEN briefly responded on behalf of the members of the Melbourne and Victorian Branch of the British Medical Association.

The two Presidents then signed a declaration certifying the adoption of the new code of rules and by-laws by the Society and Branch respectively, thus formally consummating the amalgamation.

The meeting then proceeded to accept nominations for office-bearers of the Melbourne and Victorian Branch of the British Medical Association and for the corresponding office-bearers of the Medical Society of Victoria.

Drs. A. G. Black and J. F. Wilkinson were elected scrutineers.

Medical Society of Victoria.

A SPECIAL meeting was held in the hall of the Society on Wednesday, December 19th; the President (Dr. M. U. O'Sullivan) occupying the chair.

The PRESIDENT, on behalf of the Committee, moved the following resolution:—"That the Medical Society

of Victoria approve the proposed code of by-laws for the Melbourne and Victorian Branch of the British Medical Association as already considered and amended by the Society, subject to the following further amendment:—At the end of Rule 16 add the following words, 'Provided that no person shall be deemed to be a member of the Melbourne and Victorian Branch of the British Medical Association who shall not have signed an undertaking that he will abide by the regulations and by-laws of the British Medical Association and the rules of the Melbourne and Victorian Branch thereof,' and that the said code of by-laws, so amended and approved, be inserted in the minutes of the Society."

Professor ALLEN seconded the motion, and briefly recapitulated the negotiations between the two bodies which that evening were about to result in an amalgamation of the two principal medical societies in Victoria.

The motion was carried unanimously.

The PRESIDENT, on behalf of the committee, moved the following resolution:—"Contingent upon the adoption by the Melbourne and Victorian Branch of the British Medical Association of the new code of by-laws for that Branch, which code has been communicated to the Medical Society of Victoria and ordered to be inserted in its minutes, of which adoption a certificate, signed by the President of the Society, shall be sufficient evidence, the Medical Society of Victoria doth hereby repeal its code of rules and doth exact the following in lieu thereof:—[Here take in the code of new rules for the Medical Society as already circulated in printed form among the members, with the following amendment: 'In Rule 5 before the word "signified" insert the words "shall have."'] Provided that the Committee and officers of the Society appointed under the rules now repealed shall remain in office until a new committee and new officers shall have been appointed under the rules now enacted, and that the committee so remaining in office shall have full power under the rules now enacted, acting in agreement with the Council of the Melbourne and Victorian Branch of the British Medical Association, to make all necessary arrangements at its absolute discretion for carrying into effect the new rules of the Society. Provided further that the first annual meeting under the new rules may be held at such time as the committee so remaining in office shall appoint. Provided further that every member of the Medical Society shall be requested to sign an application for admission as a member of the Melbourne and Victorian Branch of the British Medical Association, and an undertaking that he will abide by the regulations and by-laws of the British Medical Association and the rules of the Melbourne and Victorian Branch thereof, and that after the nineteenth day of December, 1906, no person shall be allowed to take part in any meeting of the Society or to enjoy any other privilege of membership of the Society who shall not have signed such application and such undertaking and forwarded the same to the Honorary Secretary of the Society, and provided that all persons who have not signed such application and undertaking and forwarded the same to the Honorary Secretary of the Society on or before the thirty-first day of March, 1907, shall cease to be members of the Society."

After some discussion upon various matters of procedure, the motion was carried.

The members of the Victorian Branch of the British Medical Association were then admitted, and the meeting proceeded as reported in the proceedings of that body.

Melbourne and Victorian Branch of the British Medical Association and Medical Society of Victoria.

THE annual meetings of the above societies were held for the first time under the new rules of Association in the hall of the Medical Society on Friday, January 4th, 1907. During the first part of the meeting the chair was occupied by Dr. M. U. O'Sullivan, the retiring President of the Medical Society.

Dr. HORNE said that several members present desired to get away early, and he asked the chairman whether it would be possible for such members to receive their ballot papers and record their votes before the item of election of office-bearers on the business paper was reached.

After some discussion leave was granted to such members as wished to leave to record their votes at once.

The CHAIRMAN thereupon announced that only one nomination had been received for the office of President of the two Societies. He had very great pleasure in declaring Professor Allen duly elected as President for 1907.

Professor ALLEN briefly thanked members for his election, and said that he would take an opportunity later in the evening of addressing members.

The CHAIRMAN also declared Dr. C. H. MOLLISON elected to the office of hon. treasurer without opposition.

Dr. MOLLISON briefly thanked the members.

The minutes of the last annual meeting of the Medical Society of Victoria were taken as read, and confirmed as printed in the *Intercolonial Medical Journal*.

The HON. SECRETARY (Dr. L. J. Balfour) read the report of the committee of the Medical Society of Victoria for 1906.

ANNUAL REPORT OF COMMITTEE FOR 1906.

At the annual meeting held in January, 1906, the following officers were elected for the year:—President Mr. M. U. O'Sullivan; vice-presidents, Dr. W. Moore, Dr. R. R. Stawell; hon. treasurer, Dr. Mollison; hon. librarians, Dr. A. W. F. Noyes, Dr. H. Douglas Stephens, hon. secretary, Dr. L. J. Balfour; members of committee, Drs. W. R. Boyd, F. Hobill Cole, E. L. Gault, G. T. Howard, H. Cairns Lloyd, F. Meyer, F. W. W. Morton, R. H. Russell, W. Beattie-Smith, and A. Jeffreys Wood. The roll of members at the close of the year is as follows:—11 life members, 311 ordinary members, 11 honorary members, and 9 corresponding members—total, 342. During the year 14 new members have been elected. It is with regret that the death of Dr. J. E. Neild is recorded. He was a life member of the Society, and for many years had taken an active part in its proceedings, both as secretary and later as president. An extended obituary notice appeared in the September number of the *Intercolonial Medical Journal*. There have been 12 ordinary and 4 special meetings of the committee during the year, and the attendance of members has been as follows:—Mr. O'Sullivan (President), 13; Dr. Altmann, 6; Dr. W. R. Boyd, 15; Dr. Cole, 13; Mr. Gault, 6; Dr. Howard, 6; Dr. Lloyd, 13; Dr. Meyer, 10; Dr. Mollison, 13; Dr. Moore, 12; Dr. Morton, 7; Dr. Noyes, 7; Mr. Russell (absent from Victoria during a great part of the year), 1; Dr. Smith, 12; Dr. Stawell, 8; Dr. Stephens, 12; Dr. Wilkinson, 8; Dr. A. J. Wood, 13; Dr. Balfour, 16. Drs. Wilkinson and Altmann were appointed the Society's editors of the *Intercolonial Medical Journal of Australasia* for the year. During

the year 1 annual, 1 special and 11 ordinary meetings of the Society have been held, and the attendances have been larger than for any previous year, the average attendance being 40. The committee desires again to accord to Dr. Mollison its very hearty thanks for the large number of specimens of pathological anatomy exhibited by him during the year. Dr. Rothwell Adam was empowered to represent the Society during his travels in Europe and America. During the year three interesting discussions were opened—on gallstones, by Mr. Syme; on Spinal Anæsthesia, by Dr. Zwar; and on the Opsic Index, by Dr. T. P. Dunhill.

A large amount of interest has arisen during the year out of the appointment of a sub-committee to consider the question of the education, supervision and registration of midwives. The advisability or otherwise of approving of the visiting obstetric nurse occupied the greater part of the two ordinary meetings held in November and December, and was ultimately referred back to the sub-committee to furnish fuller details in any proposed scheme of visiting obstetric nurse. During the year the committee has had under discussion the question of the appointment of delegates to consider the formation of an Australasian Medical Association, and also the question of closer association with the Melbourne and Victorian Branch of the British Medical Association. After much work, and many special meetings, the committee now congratulates the Society that a close form of association with the Melbourne and Victorian Branch of the British Medical Association has been accomplished, and trusts that the two Societies will work harmoniously under the new rules, and trusts also that such association will be for the good of the profession in Victoria.

The following papers were read during the year:—

"Notes on a Case of Bullet Wound of Pericardium Pleura, Stomach, Liver and Spleen—Splenectomy—Recovery," by F. D. BIRD.

"Notes on a Case of Multiple Polypi of the whole Intestinal Tract, Causing Repeated Intussusception."—D. McM. OFFICER.

"Notes on a Case of Intestinal Surgery."—G. A. SYME.

"Discussion on the Diagnosis and Surgical Treatment of Gallstones."—G. A. SYME.

"Notes on a Case of Teratoma."—CONSTANCE ELLIS.

"Recurrent Vomiting of Adults, with Notes of Three Cases, One Fatal."—A. V. M. ANDERSON.

"Notes on a Case of Symphysiotomy."—J. W. D. HOOPER.

"A Case of Appendicitis and Removal of Gangrenous Appendix an Hour after Parturition."—J. W. D. HOOPER.

"Demonstration of Lymph Lavage in the Treatment of Certain Skin Diseases."—H. LAWRENCE.

"Brief Notes on a Case of Congenital Syphilis in a Child."—F. HOBILL COLE and H. DOUGLAS STEPHENS.

"Notes on a Case of Rhythmic Tremor of Acute Onset, probably due to a Lesion of the Right Superior Peduncle of the Cerebellum."—H. C. MAUDSLEY.

"The Neglect of the Ear."—W. KENT HUGHES.

"Absorption of a Tumour (probably fibroid) in the Broad Ligament during Pregnancy."—A. N. McARTHUR.

"Spinal (Stovain-Adrenalin) Anæsthesia"—B. T. ZWAR.

"Notes on a Case of Double Optic Neuritis, in which Trephining was Practised."—R. R. STAWELL and J. W. BARRETT.

"Glioma of the Base of the Brain."—HENRY LAURIE.

"On the Treatment of Hæmorrhage after Removal of Post-Nasal Adenoids"—J. W. BARRETT and W. F. ORR.

"The Value of the Trans-illumination Test in the Diagnosis of Empyema of the Maxillary Antrum."—J. W. BARRETT and W. F. ORR.

"Sub-acute Combined Sclerosis of the Cord."—R. R. STAWELL.

The following cases were exhibited:—

"Chancere of the Nipple."—W. A. JAMES.

"Hypertrophy of the Great Toe."—D. McM. OFFICER.

"Bullet Wound of Pericardium, Pleura, Stomach, Liver and Spleen—Splenectomy."—F. D. BIRD.

"Patient with a Rare Dislocation."—W. A. JAMES.

"Intestinal Obstruction after Appendicectomy."—R. A. STIRLING.

"Excision of the Tongue."—R. A. STIRLING.

"Rhythmic Tremor of Acute Onset, probably due to a Lesion of the Right Superior Peduncle of the Cerebellum."—H. C. MAUDSLEY.

"Old Injury to Arm."—W. MOORE.

"Partial Gastrectomy after a Preliminary Gastro-enterostomy."—G. A. SYME.

"Plastic Operation for Scarring after Burns."—G. A. SYME.

"Several Orthopaedic Cases."—W. KENT HUGHES.

"Removal of the Tongue."—W. MOORE.

"Double Optic Neuritis, in which Trephining was Practised."—R. R. STAWELL and J. W. BARRETT.

"Two Cases of Optic Neuritis, in which Trephining had been Practised, with Relief of Symptoms."—J. W. BARRETT.

"Two Cases of Abnormal Blood-vessels in the Nasopharynx."—J. W. BARRETT and W. F. ORR.

"Recovery from Fibrous Ankylosis of the Hip."—A. E. MORRIS.

The following exhibits were shown:—

"Numerous Pathological Specimens."—C. H. MOLLISON.

"Multiple Polypi of the whole Intestinal Tract."—D. McM. OFFICER.

"Hearts showing Congenital Malformation."—W. H. SUMMONS.

"Teratoma."—CONSTANCE ELLIS.

"Microscopic Slides showing Spirochæta Pallida."—F. HOBILL COLE, H. DOUGLAS STEPHENS and O. A. SAYCE.

"Glioma of the Base of the Brain."—HENRY LAURIE and C. H. MOLLISON.

"Lantern Slides illustrating Sub-acute Combined Sclerosis of the Cord."—R. R. STAWELL.

Dr. A. W. F. NOYES read the report of the Hon. Librarians.

LIBRARIANS' REPORT, 1906.

We are pleased to report that the Library has made steady progress during the year. Members will find the completed card catalogue of great assistance to them in finding any work on the shelves. The number of volumes now in the Library is upwards of 7000, not including duplicates. We receive regularly by purchase and exchange 90 medical periodicals, reports and transactions of societies. The following journals have been added to the Library during the year:—*Annals of Otolaryngology, Rhinology and Laryngology*, *Annals of Surgery*, *Calcutta Medical Journal*, *Federal Dental Journal*.

A. W. FINCH NOYES,
H. DOUGLAS STEPHENS, } Librarians.

The Hon. TREASURER (Dr. C. H. Mollison) read the treasurer's report, and commented upon the various items on the balance-sheet.

TREASURER'S REPORT.

The Hon. Treasurer in account with the Medical Society of Victoria for the year ending December 31st, 1906.

Dr.				
To Balance from 1905	.. ..	£63	4	4
„ Subscriptions and Exchange	.. ..	553	16	3
„ Subscription to Journal and Defence Association	.. ..	1	5	0
„ Deposit from Savings Bank	.. ..	77	12	11
		£695	18	6
Cr.				
By Caretaker's Salary	.. ..	£24	0	0
„ Collector's Commission	.. ..	8	2	10
„ Rates	.. ..	8	15	0
„ Gas	.. ..	6	18	0
„ Telephone	.. ..	10	5	0
„ Stillwell's Account, 1904	.. ..	44	11	6
„ Lancel	.. ..	£374	13	9
Drafts	.. ..	0	12	9
Cable	.. ..	1	6	6
		376	13	0
„ Library Account—				
Library Clerk	.. ..	15	0	0
G. Robertson & Co.	.. ..	24	7	0
W. Detmold, Ltd.	.. ..	6	14	0
H. K. Lewis	.. ..	1	0	0
British Medical Journal	.. ..	0	10	6
British Children's Journal	.. ..	0	8	0
		47	19	0
„ Insurance	.. ..	3	7	6
„ Electric Light Meter	.. ..	0	13	0
„ Stamps	.. ..	2	11	5
„ Exchange	.. ..	1	18	6
„ Repairs, etc.	.. ..	3	17	3
„ Subscription to Journal and Defence Association	.. ..	1	5	0
„ Funeral Wreath	.. ..	1	1	0
„ Bank Charge	.. ..	0	10	0
„ Cheque Book	.. ..	0	2	0
„ Clock	.. ..	1	1	0
„ Secretary's Expenses (2 years)	.. ..	1	2	7
„ Balance in Bank of Victoria	.. ..	151	4	5
		£695	18	6

Examined and found correct.

G. HORNE, } Hon.
P. S. WEBSTER, } Auditors.

C. H. MOLLISON, Hon. Treasurer.

January 3rd, 1907.

These various reports were adopted.

Dr. O'SULLIVAN then vacated the chair, which was occupied by the retiring President of the Melbourne and Victorian Branch of the B.M.A. (Dr. G. Cuscaden).

The minutes of the last annual meeting, as printed in the *Australasian Medical Gazette*, were taken as read and confirmed.

The HON. SECRETARY (Dr. W. B. Vance) read the report of the Council of the Branch for 1906.

ANNUAL REPORT.

Your Council, in presenting the twenty-sixth annual report on the work of the Branch for the year 1906, desires to congratulate the profession on the accomplishment of the union with the Medical Society of Victoria. With this union we are sure that many of the burdens which the profession has laboured under for many years will, if not be entirely removed, at least rendered lighter, now that we have one voice only to express our desires. Your Council takes this opportunity of expressing their indebtedness to the delegates from the Medical Society, especially Professor Allen, for the very

happy way in which they met all the difficulties which arose in bringing about this desirable achievement.

We regret to have to record during the year the deaths of Drs. J. E. Neild, Cookson and Ramsay. Dr. Neild was one of our founders and past President of the Branch. His ripe knowledge was always available and was of inestimable advantage to the members of your Council.

We have much pleasure in reporting an increase both in members present and interest taken in our monthly meetings. Our indebtedness is due to the authors of the papers read for the great trouble they took in bringing before us the very interesting matter they did.

Many questions of importance have arisen during the year, but, as far as possible, your Council have postponed dealing with them so as not to hamper the actions of the new Council.

The sub-Branches have continued to flourish, and we finish the year with an application from the Border Medical Association for affiliation and with an endeavour being made to resuscitate the Goulburn Valley Branch.

From the Hon. Treasurer's report it will be seen that financially the Branch is in a most flourishing condition, due in a large measure to the energy of your Hon. Treasurer (Dr. Joske) in reminding members that a subscription is necessary for the working of the Branch.

Your Council in terminating their year of office thanks the members for their invaluable assistance in carrying on the work of the Branch, and expresses the hope that they will extend to their successors the same loyal support they have always been ready to give them on all occasions.

The HON. TREASURER (Dr. A. S. Joske) read the balance-sheet and statement of assets and liabilities.

The reports and balance-sheet were adopted.

Dr. CUSCADEN then invited the newly-elected President (Professor Allen) to take the chair.

The meeting then proceeded to the election of hon. secretary, hon. librarians (2), and members of Council of the Branch and Committee of the Society (8).

The PRESIDENT announced that after consultation with the two retiring Presidents, it was decided not to ask them to deliver their retiring addresses on that evening, owing to the interest taken in the election of office-bearers. It had been decided to leave it to the meeting to say when they should be heard, or whether they should be forwarded to the medical journals for publication without delivery. It was ultimately decided that a special meeting should be called for the evening of January 23rd to hear the addresses of the retiring Presidents.

During the scrutiny Professor ALLEN briefly addressed the members. He said that he had little expected that he would again occupy the chair as President of the Medical Society of Victoria and still less as President of the Victorian Branch of the B.M.A. He most sincerely congratulated the members on the happenings which had enabled a union of these two powerful bodies to result. He also desired most heartily to thank the members for having elected him as the first President under the new rules. All that he could possibly do to render the union harmonious and of value to the profession as a whole would be done. There was a busy year before the members of the new Council. Both the Society and the Branch had postponed consideration of many important matters so as to allow the new Council a free hand as far as possible. One of the first matters was the compilation of a correct roll of members and the adjusting of the different classes of members under the new rules. In

the near future there should be a membership roll of at least 500. As had been mentioned in the report of the Council of the Branch, an application had been received from the Border Medical Association to be recognised as a division of the B.M.A. Other divisions were flourishing, and it was more than likely that during the next year more divisions would be instituted. At the first meeting of the new Council an assistant secretary and an assistant treasurer were to be appointed. Probably the most difficult task would be the choice of an official journal and the making of the necessary arrangements. In this connection the Council had to appoint editors, not to exceed three in number. He trusted that this meeting would be the starting point for a period of new activity in the medical profession.

After some little delay the scrutineers announced the result of the scrutiny. The complete list of office-bearers elected for 1907 is:—President, Professor H. B. Allen (unopposed); vice-presidents, Mr. G. A. Syme, Mr. George Cuscaden; hon. treasurer, Dr. C. H. Mollison (unopposed); hon. librarians, Mr. A. W. F. Noyes, Dr. H. Douglas Stephens; hon. secretary, Dr. L. J. Balfour; members of Council of the Branch and Committee of the Society, Dr. W. R. Boyd, Dr. G. T. Howard, Dr. Felix Meyer, Dr. W. Moore, Dr. F. W. W. Morton, Dr. W. Beattie-Smith, Dr. J. F. Wilkinson, Dr. A. Jeffreys Wood.

New South Wales.

COUNCIL MEETING.

THE Council met at the Association Rooms on Tuesday, December 11th, 1906. Present: Drs. Pockley, Abbott, Hinder, Rennie, Crago, Todd, Brady, Clarence Read, Worrall.

The minutes of the previous meeting were read and confirmed.

The following members were elected:—Dr. A. J. Cahill, Coraki; Dr. J. H. S. Finnis, Goulburn; Dr. W. Kerr Lockhead, Dapto.

Letter from Dr. C. J. Martin with reference to business of the Branch before the home Association. Received.

Letter from the Medical Secretary of the home Association with reference to the election of representatives of this Branch on the home Council. Received.

Telegram from Dr. Vance, of Victorian Branch B.M.A., and also letter on the question of the supply of *A.M. Gazette* to the members of the Victorian Branch. Read and received.

Resolved—"That the Council of the New South Wales Branch B.M.A. congratulates the Victorian Branch of the B.M.A. on the amalgamation of the Branch and the Victorian Medical Society. That the Hon. Secretary be authorised to forward a telegram to the above effect on the date of the meeting."

Resolved—"That Drs. Crago and Rennie be authorised to represent the Branch with reference to the furtherance of the *A.M. Gazette* in Victoria."

Letter from Dr. Fiaschi, giving notice that he intended to move that a clinical evening be held each month.

Letter from Dr. Beeston, of Newcastle, regarding the model lodge agreement. Read.

Letter from Dr. Barton, of Dubbo, with reference to the £200 wage limit. Read.

Letter from Dr. Cribb, hon. secretary, W.M.A., forwarding a copy of the resolution agreeing to the £200 wage limit. Read.

Letter from Dr. Neumann, of Wilcannia, re model lodge agreement.

Letter from Dr. Fitzpatrick, of Crookwell, referring to lodge practice and the wage limit. Read.

Letter from Dr. Farrell, Quirindi, re fees for certificate. To be informed.

Letter from the Friendly Societies' Association asking for a conference with the Council of the New South Wales Branch. Resolved—"That a conference be held as requested, and that six representatives be suggested—Drs. Pockley, Worrall, Clarence Read, Dick, Crago, Abbott—to represent the Branch at the conference."

Letter from Dr. Milan Soule, of San Francisco, resigning his position as member of the Branch.

Letter from Dr. Cribb, of Millthorpe, with reference to a practitioner whose name is on the confidential list. Resolved—"That Dr. Cribb be asked to bring the matter before the Western Districts Medical Association and to report the result."

Letter from a member with reference to advertisements in the *Newcastle Herald*.

REPORTS OF OTHER SOCIETIES.

Border Medical Association.

THE Border Medical Association held its quarterly meeting at Chiltern, Victoria, on December 13th. There were present: Dr. Harris (President), Drs. Harkin, Barrington, Andrews, Walch, Woods, Schlank, Nish, Shuter and Lang.

Dr. ANDREWS' motion, which had been so often before the members, "That this Society does now affiliate with the British Medical Association," was finally adopted.

The PRESIDENT then read a paper on "The Pathology and Symptomatology of Ununited Fracture," and

Dr. WOODS read a contribution on the treatment of the same, illustrated by skiagraphs.

Every member present took part in the discussion which followed, and Dr. Woods replied.

The members present were driven by Dr. Harkin during the afternoon to the Golden Bay Mine, where a most interesting and pleasant time was spent.

The next (the annual) meeting will be held at Wangaratta in March.

The Sydney and Suburban Provident Medical Association.

THE annual meeting of the above Association was held at 121 Bathurst-street, Sydney, on October 30th, Dr. E. H. Binney being in the chair. The Hon. Secretary's report stated among other particulars that there had been an increase in membership during the year of 200 members. There were 103 medical men on the active staff and 43 on the consulting staff, and there were 44 chemists dispensing for the Association. The working of the Association during the period had been very satisfactory, and no complaints of any importance had been received either from members, the medical staff, or the chemists. The Hon. Treasurer's financial statement showed the steady advance of the Association. The active staff had received £2656 10s 11d in quarterly dividends, and the chemists had £1209 12s 6d paid them.

The PRESIDENT (Dr. Ralph Worrall) wrote tendering his resignation of the position in terms setting forth that he felt the post should be occupied by one who could devote more time to the duties involved. The committee, while accepting Dr. Worrall's resignation with regret, passed a motion thanking most sincerely the retiring president for the work he had done on behalf of the Association for many years past. Dr. Sydnev Jamieson was then elected as president.

REVIEW OF CURRENT MEDICAL LITERATURE.

SURGERY.

The Radical Cure of Femoral Hernia.

Coley (*Annals of Surgery*, October 1906) states that between 1891 and 1906 he performed 117 operations for femoral hernia on 105 patients. Thirty-four of these operations were on children under 14 years of age; 83 operations were done upon patients between 14 and 75 years. In children the relative frequency of femoral hernia in males to females was one to two, while in adults it was about one to six. The relative frequency of femoral hernia to inguinal hernia, as given by Macready, is 1 to 16, while at the Hospital for Ruptured and Crippled it is 1 to 17. Coley's own statistics for the radical cure of hernia gives 1 to 14; 117 cases of femoral in 1678 cases. All statistics give a slightly higher mortality for operations in femoral than in inguinal hernia, and the percentage of permanent cures is 70.5 in femoral and 82 in inguinal. In the author's earlier cases where no attempt was made to close the canal, a recurrence took place within a year in 30 to 40 per cent. of the cases. Reference is made to the numerous methods of closing the ring and canal that have been made by various operators, but Coley has confined himself to two methods: Bassini's in 18 cases, with one partial relapse, and the purse string suture method in 103 cases—the latter, a slight modification of the operation devised by Cushing, of Boston, in 1888. The operation performed by Coley is briefly described as follows:—An oblique incision is made a little below Poupart's ligament and parallel with it. The sac, with the mass of extra peritoneal fat that almost always surrounds it, is then freed well up into the femoral opening. The masses of fat are carefully removed; the sac itself, by gentle traction, is brought down well beyond its neck to a point where it widens into the general peritoneal cavity. It is always opened before ligature to make sure that it is empty. If omentum is present, it is tied off and removed. The ligature having been well placed beyond the neck by transfixion, it is carefully tied and the sac removed. When the stump of the sac has been pushed well through the opening into the abdominal cavity, there is no longer any funicular process present in the femoral region. With a curved Hagedorn needle, threaded with kangaroo tendon of medium size, the suture is placed as follows:—The needle is first passed through the inner portion of Poupart's ligament or the roof of the canal, then downward, taking firm hold of the pectineal fascia and muscle, then outwards through the fascia lata overlying the femoral vein, and finally upwards, emerging through the roof of the canal about one-quarter inch distant from the point of entrance. On tying this suture, the floor of the canal is brought into apposition with the roof and the femoral opening is completely obliterated. The skin and superficial fascia are closed by means of an interrupted catgut suture, and a sterile dressing is applied without drainage. The patient is kept in bed for two weeks, and allowed to go home at the end of two and a-half weeks. In the 100 cases operated on by this method, most of which have been carefully traced, there has not been a single relapse. Coley discusses the objections that have been taken to this method of closing the femoral canal by various Continental operators, and thinks the value of an operation does not depend on how nearly it fulfils theoretical considerations, but to what extent it meets

two very practical tests: (1) Simplicity, including safety; (2) efficiency; that is, permanence of cure. These operations, extending over a period of 15 years, and including all varieties of femoral hernia, without distinction as to size of the hernia or the age of the patient, would seem to show that the method had satisfactorily stood the tests he had laid down.

Tuberculous Peritonitis.

Boucher (*Medical Record*, September 22nd, 1906) contributes a short paper under the above heading. Tuberculous peritonitis is dependent upon an infection by means of the bacilli circulating in the blood, or upon an extension of tuberculous inflammation or ulceration from adjacent organs. All agree that the tubercle bacilli are the invariable cause of the disease, but the source of invasion admits of more and various opinions; the route by which they reach the peritoneum is frequently difficult or impossible to determine, but it is evidently by many different sources. After discussing the views of Dieulafoy and other observers, who think that the main source of infection is through the mucous membrane of the alimentary tract, he proceeds to consider a most fruitful source of tubercular peritonitis, and possibly the most frequent source of infection, namely, through the Fallopian tubes in women. Abdominal surgeons have taught us that the disease occurs more commonly in females than males, owing to the fact that the Fallopian tubes are a favourite seat for primary tuberculous infection. The Mayos found localised tuberculosis of the intestines about equal in males and females, while they found tuberculous peritonitis four times as frequent in women. In the last series of 16 cases reported by the Mayos, over 56 per cent. were produced by tuberculous tubes. The tubes are predisposed to tuberculosis by their spiral form and pleated mucosa, which favour stagnation of secretion. A striking peculiarity of tuberculous peritonitis is the frequency with which either the condition simulates or is associated with tumour. The diagnosis of these peritoneal tumours is sometimes very difficult. The omental mass is a less frequent source of error than any other, but a similar condition may occur in cancer. The most important problem is the differential diagnosis of sacular exudation from ovarian tumour. In fully one-third of the recorded cases of laparotomy in tubercular peritonitis the diagnosis of cystic ovarian disease has been made. The most suggestive points for consideration are the history of the patient and the evidence of old tuberculous lesions. The surgical treatment of tuberculosis of the peritoneum involves the following propositions: (1) To remove or shut off the source of supply to the peritoneum of new tuberculous debris; (2) to remove the products of the infective process from the peritoneum; (3) to remove the tissue proliferation for the encapsulation of the foci already present; and (4) to avoid mixed infection. Too early intervention is unwise, since the tuberculous process may be still in a period of evolution. The first surgical work for tuberculous peritonitis dates back to 1862, when Spencer Wells performed a laparotomy for supposed ovarian cyst, and found, to his astonishment, that the patient was cured. To Murphy and the Mayos belongs the credit of demonstrating that in a large percentage of cases of tuberculosis peritonitis with ascites, the foci of infection are in the Fallopian tubes and appendix. Acting upon the knowledge thus acquired they have in their later cases removed the tuberculous tubes and appendix when so found, with the result that they have cured a large percentage of cases that were formerly

only temporarily benefited by simple laparotomy. Mayo says: "Of the 26 radical tubal operations we have performed on cases of tuberculous peritonitis, 25 recovered; of these 7 had been operated upon by simple laparotomy from one to four times previously. In not a single instance as yet has another operation become necessary, and as contrasted clinically with the preceding group of equal numbers, the favourable results are most striking. There is usually a temporary continuance of the peritoneal effusion, but re-infection has not occurred." The outcome where the appendix has been the seat of the trouble has been favourable, but not so brilliant as in the tubal form of the disease. The percentage of recoveries in tuberculous peritonitis from operative measures must depend largely upon our classification of cases. In the inflammatory, localised suppurative form, the operative outcome is quite favourable, while in the suppurative multilocular cystic variety but few recover. Boucher thinks we are justified in believing that failure of simple laparotomy, with evacuation of the fluid exudate in tuberculous peritonitis to maintain its proper standing in surgery, is due to reinfection from lesions in the mucous membrane of the organs enumerated. We have been treating a symptom instead of removing a source of disease. In conclusion, we are forced to believe that tuberculous peritonitis, like septic peritonitis, has its origin in a local focus in nearly every case. Peritoneal reinfection may be prevented if we are successful in removing the local focus. Whether the patient will remain cured must depend upon whether the local focus thus removed is primary or secondary; if primary, we can hope for good results, but if secondary, it must depend upon the possibility of cure of the primary seat of the disease.

Two Cases of Stricture of the Ureter; Two Cases of Hydronephrotic Renal Pelvis Successfully Treated by Plication.

Howard Kelly (*Bulletin of the Johns Hopkins Hospital*, June, 1906) records the above. The first case of stricture of the ureter was in a woman, who had suffered from a bad attack of lower abdominal pain accompanied by a temperature of 102° and much tenderness in the right side. She had had a difficult instrumental labour nine years previously. In November, 1904, Kelly performed an abdominal section, and found both ovaries small and sclerotic, and the ureters apparently normal. He removed the appendix and suspended the uterus. She made a good recovery from the operation, but continued to have more or less discomfort in the lower abdomen. Upon making a vesical examination in the knee-breast posture through a No. 10 speculum, a curious teat of tissue could be seen hanging down into the bladder from its base on the right side, occupying the position of the ureteral mons. This at first appeared as a short truncate cone, about 1.5 cm. in diameter at its base, and 6 mm. from base to apex. From the apex clear urine fell steadily drop by drop. While he was watching it the cone began to swell, and as it continued to grow larger its walls appeared paler, thinner and clearer, until at the maximum a few red vessels could be seen coursing over the surface, which looked like a large cyst as big as the end of the thumb, full of water. With this distension the flow of urine increased in amount. Following this distension the cyst collapsed to its former size. While watched it continued to expand and contract at intervals of from five to ten seconds. The ureteral orifice could be seen on the

urethral side of this mons, faintly outlined, forming a narrow slit. It was manifestly a stricture of the vesical orifice of the ureter affecting only the mucous surface. The treatment was simple. One of the points of a delicate pair of vesical scissors, working on long parallel handles like an alligator forceps, was introduced into the urethral slit-like orifice when the sac was fully distended, and a cut 5 mm. in length was made. About 30 cc. of urine escaped. When examined five days later the right ureteral orifice appeared stellate, widely opened, seated on a red papillary eminence. *Case 11.* was one of stricture of the upper ureter treated by dilatation. The patient was a man aged 42. He had had repeated attacks of severe pain in the left side, seriously interfering with his occupation. These attacks began over 20 years before, when he had a long spell of sickness associated with a bowel trouble, thought to be intussusception. The attacks were clearly renal in their origin, so the kidney was exposed, and on being rotated brought into view a large hydronephrotic pelvis of about the same size as the kidney itself. The ureter, which began normally, suddenly contracted until it was only about 2 mm. in diameter at a point 2 cm. below the pelvis. The pelvis of the kidney was incised about a centimetre above the ureter, and through this orifice metal catheters were introduced, and the stricture was gradually dilated until a catheter about 5 mm. in diameter was passed with some apparent rupture of the inner coats of the ureter. The wound in the pelvis was closed with fine silk, and the kidney returned to its position with a small drain. The patient made a perfect recovery from the operation, and has never had any pain since—now six years. The two cases of hydronephrosis treated with plication of the renal pelvis were as follows:—The first was a woman aged 48, the mother of two children. For six years she had been suffering at irregular intervals with acute lancinating pains in the right lumbar region, associated with the formation of a tumour the size of an orange and very sensitive to touch. The disappearance of the tumour was followed by an increase in the amount of urine. After placing the patient in the knee-breast position, the right ureter was catheterised and 135 cc. of a boracic aniline solution was injected, which served to bring on the same pains as those of which she had complained. The diagnosis of hydronephrosis was thus made positive and an operation advised. The kidney was exposed through an oblique lumbar incision 10 cm. in length. The kidney was found extremely movable, and the pelvis, which had been previously distended, was seen to be the size of an after-dinner coffee cup. The ureter was attached to the side of the pelvis at a point 3 cm. above its lower pole. The fatty capsule was separated from the posterior part of the renal pelvis, which was then emptied of 62 cc. of fluid through the renal catheter. The fatty capsule was cut away from the upper to the lower end of the pelvis, and the remaining portion was used to sew the capsule together so as to constrict the pelvis, by passing three silk sutures, two mattress and one interrupted, through the margin of the kidney on one side and out into the fibrous tissue of the amputated fatty capsule on the other. When the sutures thus passed were tied, the pelvis was constricted as in lacing up a corset. The ureter was by this means restored to its normal relations, and on pressure on the pelvis urine was seen to escape downwards without hindrance. The kidney was suspended by one silk suture around the last rib and by two others to the quadratus muscle. The patient recovered, and six weeks later, when the

kidney was injected again, it held only 18 cc. The second case of plication for hydronephrosis was in a woman aged 31, who had had one child after a long, hard labour. During her pregnancy in the fifth month she was seized with severe pain in the right side, followed by the discharge of large amounts of pus in the urine, with albumin which had not been found before. She had suffered from weekly attacks with her kidney from this time until the child was born; after that event the attacks were monthly. During an attack a tumour would form on the right side, which would disappear, accompanied with the discharge of pus by the bladder. Kelly in his investigations found that there was no stone in the kidney and there were no tubercle bacilli. He catheterised both kidneys and discovered a mild pyelonephrosis on the right side, the pelvis of the kidney holding 80 cc. of aniline solution. On the left side he found what had hitherto been unsuspected, a much-dilated renal pelvis of a capacity of 35 cc.

In addition to various gynaecological operations, Kelly operated on both kidneys, doing plication and fixation of the right kidney and plication and fixation of the left kidney. The right kidney was exposed through an incision in the loin, similar to that used in the last case. The large flaccid pelvis with thickened walls was then reduced in size by plication, by passing three silk sutures so as to gather up the entire pelvis in a V-shape, one inside the other, and only on the posterior surface. Each suture started by transfixing the margin of the kidney surrounding the pelvis, and was then carried down into the pelvis towards the ureteral orifice, picking up the tissues of the pelvis, without penetrating the mucosa, and catching the strong peripelvic fascia as in the last case, on the extreme edge of the pelvis. The suture then returned and emerged on the margin of the kidney. After passing three sutures in this way they were drawn up so as to pucker and draw the pelvis together, when they were tied, each to its own end respectively. The kidney was suspended as in the previous case. A similar procedure was adopted on the left side, except that two sutures were used instead of three for the plication. The patient made a slow but satisfactory convalescence and left the hospital in ten weeks, having gained eight pounds in weight and feeling well. Kelly realised that there was some risk in treating a much-damaged affected kidney in this way, but he felt it was well worth the effort in view of the condition of the other side.

EAR, NOSE AND THROAT.

The results obtained from the Radical Operation for Chronic Purulent Otitis Media.

Dench, of New York, in the *Laryngoscope* for October, gives his results of the radical mastoid operation under the following heads:—(1) The efficiency of the operation in protecting the patient from intracranial suppuration. He has records of 193 cases of his own, and in none of them has there been any evidence of any intracranial lesion after the suppuration has been relieved. He concludes, therefore, that the radical operation does truly protect the patient from the dangerous sequelæ of middle ear suppuration. (2) The efficiency of the operation in causing a permanent cessation of the ear discharge. In this regard his results have been most satisfactory. He has found that even where a small amount of discharge has persisted for weeks or even months after the operation, at under simple measures of cleanliness it has all

eventually disappeared. He points out in this connection that the cavity left after this operation when all discharge has ceased is lined by integument closely applied to its bony walls with very little connective tissue substance intervening; that, further, the cavity is a blind pouch in which desquamation of epithelium takes place and accumulates. If this accumulation remains in the cavity for any length of time the sublying epithelium may be made sodden, and on removing by syringing this accumulated epithelium some pus may be seen, and the cavity look far from healthy. In these cases the operation is not a failure, the apparent relapse is due simply to the fact that the skin lining the operation cavity has been improperly nourished. Simple irrigation from time to time and sterilisation with an alcoholic solution of perchloride of mercury, and subsequent dusting with some bland non-irritating powder, as boric acid, xeroform or zinc oxide, will cause the cavity to become quite dry. He says—and in this he must be borne out by those having large experience in this operation—that these attacks of desquamation, if so treated, occur less and less frequently as time goes on, because the integument gradually adapts itself to its new habitat, and becomes better nourished and therefore stronger. (3) The immediate and remote effect of the operation on the function of hearing. Dench has had in this respect excellent results. Out of 111 cases in which the hearing records were kept, the hearing after the operation was good in 99, was fair in 9, and only was bad in 3. By "good hearing" he means when the whispered voice was heard anywhere from 5 feet to 15 feet; "fair hearing" when a whisper was heard from 3 feet to 6 feet; and in the remaining three cases the hearing was worse than it was before the operation. He says that the hearing will not be greatly interfered with as a result of the operation if the operator is careful neither to dislodge the stapes nor to impact it in its oral window. He does not mention at all the extreme importance of keeping down the growth of granulations in the tibial wall of the tympanum either by judicious packing or other measures during the after treatment. He makes an interesting observation which does not appear to have been mentioned before, and that is that in his practice he has a number of cases which had been subjected to this operation some years ago. In these cases, he says, the hearing has steadily improved, and believes it is owing to the gradual mobilisation of the stapes by the sound waves. If this be so, it may indicate the possibility of the radical operation being of use in cases of deafness from purely middle ear causes. (4) The effect upon the integrity of the facial nerve. In 15 cases he had facial paralysis; he does not say of what degree, or whether it came on immediately or some days afterwards, but they all recovered their functions entirely.

A Case of Sarcoma of the Temporal Dura Mater which simulated a Suppurative Mastoiditis.

Walker Downie, in the *Practitioner* for November, narrates a case in a child, one year and nine months old. The external meatus first showed a discharge and a firm fleshy growth which the microscope pronounced to be granulation tissue. There was evident facial paralysis, which had existed three weeks before the child came under observation. The auricle was prominent, being pushed forward by a swelling of the mastoid. This whole area was swollen, painful to the touch, and its central portion distinctly fluctuating. The mastoid was opened, and it was seen that the bone was extensively disintegrated, denuded of its peri-

osteum, and necrosed in part, while masses of vascular fleshy tissue resembling granulation tissue filled the meatus, the tympani and the antrum. There was also foul-smelling inspissated pus in the tympani and distended spaces of the mastoid. This was all thoroughly curetted away and packed through the meatus. Three weeks later, while the mastoid incision was joined and healthy, granulations had appeared in the meatus. These were examined again and found to be merely rapidly-growing granulation tissue. Ten days later the child had several convulsive seizures and the mastoid began suddenly to swell. In a few days this was the seat of a large fungating mass. There was no doubt now, despite the former reports of the histological character of the new growth, that the swelling was sarcomatous. Subsequent examination revealed that this growth came from the dura mater over the tegumen tympani. It had indented the temporo-sphenoidal lobe here and caused also an area of cerebral softening, but there was no infiltration of the brain by the tumour, nor were any secondary deposits made out. Its nature was a sarcoma of the mixed cell type.

THERAPEUTICS.

Antithyroidin in Exophthalmic Goitre.

Elsner and Wiseman (*New York State Journal of Medicine*, June, 1906) report some experience in the use of antithyroidin in the treatment of exophthalmic goitre, and arrive at the following conclusions:—(1) Antithyroidin is a remedy which can be used for the relief of the annoying and alarming symptoms of this disease. The greatest improvement is found in the relief of the tachycardia, precordial distress and tremor. (2) Cases without marked goitre, with slight exophthalmos, tremor and Von Graefe's symptoms have yielded most readily to the antithyroidin treatment. The enlarged thyroid has been perceptibly smaller, but has not returned to its normal size. (3) Exophthalmos continued to be the most rebellious symptom, never yielding entirely to antithyroidin treatment. (4) Nervous symptoms usually yield as the heart becomes slower. (5) The majority of their patients have increased in weight. (6) With an improvement in the tone and character of the pulse there is no appreciable reduction in the blood pressure. (7) Improvement of one or more of the symptoms of the disease is likely to follow within from three to seven days after beginning the use of the remedy. If there be no improvement of symptoms after three or four weeks of administration, the chances are against ultimate benefit from the prolonged use of the serum. In serious cases it will be necessary to continue the treatment during many months. In all cases after the disappearance of the subjective symptoms it will be wise to administer antithyroidin during periods varying from four to eight weeks at intervals of two to three months.

In considering the efficacy of this treatment it must be remembered that both typical and atypical cases of exophthalmic goitre show a marked tendency to remission with comparative comfort during many years, and that acute exacerbations of symptoms are not infrequent. The authors have been in the habit of administering the serum night and morning in doses of from 15 to 30 minims. In mild cases the initial dose was from 10 to 15 minims. In patients who show no benefit from the smaller doses, they have increased the dose, occasionally giving from 40 to 60 minims. They have never used it hypodermically. In no cases have they regretted the trial of antithyroidin. It has

always proved harmless. Hypertrophied and dilated hearts offer no contra-indication to its use.

The use of the Bromides.

Hartenberg (*La Presse Medicale*, May 16th, 1906) points out that the administration of the alkaline bromides in the various neuroses is at present open to much discussion. In certain neuroses, such as epilepsy, chorea, hysteria, etc., these drugs occasionally produce brilliant results. On the other hand, there are a number of authorities who protest against the use of bromides in large doses, and who maintain that these large doses are responsible for aggravating the functional trouble. The greatest contra-indication to the use of the bromides is the depressant effect which they exert upon the nutrition of the body. Then it diminishes the elimination of urea and phosphoric acid. As a large number of the neuroses are manifestations of functional disorders of nutrition rather than of pure functional nervous disturbances, the author believes that the bromides are distinctly contra-indicated, and in cases of neurasthenia in which the nervous system is depressed, their use still further increases the depression. The depression is most marked in those cases in which very large doses of potassium bromide are used; lithium, strontium and sodium bromides being much less depressant. The strontium bromide is probably the most satisfactory of all these salts, but even it should not be given freely for long periods of time.

The action of some Drugs upon the Endogenous Uric Acid of Gouty Persons.

Walker Hall and Hutchinson (*Medical Chronicle*, June, 1906) have recorded some observations on the effects of some drugs on the excretion of endogenous uric acid in gouty persons. The administration of casein was associated with a slight increase of the endogenous uric acid, and also an increased output of albumen. But the entire variation of uric acid excretion during the experiments is within the margin of the known variations in the endogenous uric acid output which may occur in gout. Ammonia hippurate intake was associated with an increased excretion of uric acid, this being probably due to its dilatation action. Before undertaking the experiments with thyminic acid, several samples of this substance were examined for their contents of purin bases. A thyminic acid prepared from yeast yielded 0.002 per cent. purin nitrogen; a thyminic acid prepared from thymus yielded 0.016 per cent. purin nitrogen; a thyminic acid proprietary preparation yielded 0.018 purin nitrogen. After the administration of thyminic acid there was no increase in the urinary purin nitrogen. This accords with the results of most Continental observers, although Bluth has lately stated that he has observed a very slightly increased uric acid excretion after the administration of "solurol." He noted, however, that in one case after the administration of 4 grammes per day very marked excitement and mental disturbances followed, and the occurrence of these symptoms in a lesser degree might easily account for the uric acid excretion said to occur in the other cases. The variations in the total nitrogen output are consistent with what we already know of the evidence of chronic toxæmia in gout. The irregularities in the purin excretion are significant also of metabolic disturbances. The authors' result show the uselessness of the drugs they administered in reaching and affecting the origin of the disturbed metabolism.

MEDICAL MISCELLANY.

THE use of the telephone by patients who wish to secure medical advice for which they do not expect to pay is the source of considerable annoyance to most practitioners. In order to decide as to the lawfulness of charging for telephone consultations, a Viennese physician recently brought a case into court in which a patient had on several occasions, even in the night time, asked for professional advice and had refused to pay for the service. The Judge decided that the advice must be paid for whether given in the consulting-room, by letter or telephone or at the bedside. It is the duty of the practitioner to decide whether the case is such that he may safely give instructions by telephone after he has seen the patient on a previous occasion. If the physician would render bills for telephone consultations at the same rate they charge for office consultations they would soon cease to be annoyed in this manner.

The *National Druggist* relates how an order was telephoned by a St. Louis physician to give a patient one-eighth of a grain of morphine at bedtime. The message was received by the druggist's son, a lad of 14 years, who knew nothing of pharmacy, and who misunderstood the message. In his father's absence the son prepared an overdose of the drug, from which the patient died. The coroner's jury held the doctor, the druggist and the boy responsible for the death. Unquestionably the greatest care should be exercised in sending prescriptions over the 'phone, unless they are restricted to some simple and harmless ingredient. And the *National Druggist* rightly urges all druggists to refuse to compound important prescriptions unless it be with a definite understanding that the risk is assumed by those for whom the prescription is destined. Any message given over the 'phone by the physician should be repeated to him by the druggist.

Considerable anxiety exists in South Africa on account of the steady increase of leprosy in Cape Colony, in spite of every precaution the authorities are able to carry out. In a special report on the subject Dr. Gregory, Medical Officer of Health for Cape Colony, says that although the Leprosy Repression Act has been in force for the last 15 years, so far no sensible diminution in the stream of lepers annually coming to light has been made in its operations. The large leper establishments on Robben Island and Enjannana are full. At the present time there cannot, according to Dr. Gregory's estimate, be less than 1000 lepers at large, and he is of opinion that the cause of this large number of unsegregated lepers is the total inadequacy of the present asylum accommodation. He quotes figures to show that the increase has been going on steadily for many years, and that it involves both the native territory and the colony proper. Although chiefly occurring in the coloured races, the disease is not confined to them. Of a total of 432 registered lepers known to be at large, 13 were Europeans.

A society against quacks and adulterated food was to be formed, so it is stated, on November 15, in the Hudson Theatre, in New York City. Some 20 religious medical and scientific organisations, among which are the National Association for the Study and Prevention of Tuberculosis, support this project, and will send delegates to the meeting. It is announced that the society will obtain and disseminate accurate informa-

tion concerning practices and conditions of every kind that are dangerous to the public health and morals, and will endeavour to prevent quackery, criminal practices in the healing art, adulteration of drugs, and the sale of narcotics and alcohol under the guise of proprietary medicines.

Radium to the value of 1,000,000 kroner (more than £200,000) was abstracted after searching tests and experiments in the laboratories of the Vienna Imperial Academy of Science from some 50 tons of uranium earth. The dirt was taken from the State mines in Joachimsthal, Bohemia. The products will, however, not be sold, but will be kept by the Academy for further scientific research. The Bohemian Minister of Agriculture, besides building its own laboratories for the production of radium salts, proposes also to exploit their healing properties by establishing a health resort in Joachimsthal and using the springs in the mines there for curative purposes, both in baths and for drinking.

When liquid air was first commercially produced, several years ago, many untenable claims were made as to its practical application. One of the most valuable uses to which it has been put is that of the subsequent separation of oxygen and nitrogen by fractional distillation and rectification. It has proved of much value in the study of the behaviour of various metals at low temperatures. It is, for instance, generally assumed, states the *Forum*, that at very low temperatures metals become brittle and even fragile; in numerous cases the breaking of steel rails in winter has been attributed to this cause. By the use of a bath of liquid air it has been found practicable to test various metals and alloys at as low as -180°C ., and this has led to the discovery that while many steels have their tensile strength increased, their ductility lowered and their brittleness raised at low temperatures, this is not always the case. This much-heralded liquid is becoming useful in many ways not considered by its original exploiters, and will no doubt find many increasing applications.

The *African Medical Review* says that a Natal legislator, Mr. Tatham, the leader of the new Labour party, is bringing forward a bill to prohibit the issue of any professional or trading licenses to any persons other than those of European descent. This very drastic measure, if it becomes law, will include medical practitioners. It is, of course, out of our province to comment on general policy of such legislation, but we fancy that to include learned professions in the scope is going perilously near a *reductio ad absurdum*. If a man is good enough to secure the imprimatur of a University, to assume that he is not good enough to pursue his avocation in Natal seems illogical, especially as the number of men practising professions could never be anything but very small.

A French paper says that there are 228,324 medical men in the world. Of these, there are in Europe 162,333, distributed as follows:—In England, 34,967; in Germany, 22,518; in Russia, 21,489; in France, 20,348; in Italy, 18,245. In England, the proportion of doctors is 78 to 100,000 of the population; in France it is 51, and in Turkey 18; in Brussels it is 241, in Madrid 209, in Budapest 198, in Christiania 181, in Vienna 140, in Berlin 132, in London 128, in Athens 123, and in Paris 111.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Opening of the Medical Schools—Prospective Medical Lord Mayor—Advances in Surgery—Royal Commission on Vivisection—Military Nurses—Women Graduates and the Franchise.

The work of the Metropolitan and of many of the provincial schools of medicine was resumed on October 1st. In many instances the old-fashioned opening ceremony and indispensable hortatory address were dispensed with, and the work of the winter session was entered upon without formality. In other cases ancient customs were adhered to, and the students were regaled with dissertations all more or less wise, many trite, and some a trifle dull. Perhaps the greatest interest attached to the Huxley lecture, which was delivered this year by Ian Petrovich Pawlow, Professor of Physiology at the University of St. Petersburg. This lecture was delivered as usual at Charing Cross Hospital. The chair was occupied by Lord Kilmorey, and Professor Pawlow, who spoke in German, chose as the subject of his address "The Scientific Investigation of the Psychical Faculties or Processes in the Higher Animals." At the outset he explained that the conclusions to which he invited the attention of his audience were arrived at as the result of the application of experimental methods to psychic phenomena, as carried on at his laboratory in St. Petersburg. He warned them that they must approach the subject free from all psychological preconceptions. His desire was to show that the science of physiology had made an advance and was now ready and able to grapple satisfactorily with those psychological problems which have hitherto been thought to lie outside its scope. The object which the experimenters set before themselves at the outset was to "ascertain completely how the given living object maintains itself in constant relation with its environment." Research revealed that two methods were involved—reflex actions unconditioned and conditioned. Thus, the reception of food into the mouth of a dog is followed by a secretion of saliva, and this occurs as inevitably as the sequence of day and night, and may, therefore, be called an "unconditioned reflex." The same phenomenon is, however, produced in a suitably treated animal by a number of causes totally different. Thus the smell of food, the application of heat or cold, the ringing of a bell, the scratching of the skin, and an almost endless variety of other stimuli will condition a similar flow of saliva from the salivary glands. These "conditioned reflexes" are the phenomena which it is the business of the modern physiologist to investigate and interpret. Research carried out at the St. Petersburg laboratory has shown that they are capable of experimental treatment, that they can be injured and destroyed at the will of the physiologist, and that they admit of satisfactory measurement. Professor Pawlow pointed out that the subject presents enormous difficulties, for it is seldom that a "conditioned" reflex, as the sound of a dinner-bell, is simple in character. The various elements composing it are, however, susceptible of subdivision and analysis, and he described the bare outline of a means by which he is able to blend and fuse a number of simple "conditioned reflexes" and determine the resultant of their action. He claims that his methods have made it possible to approach the great problems of psychology objectively, instead of

subjectively, and that psychology, as a branch of physiology, will be able to deserve the appellation of an exact science. In conclusion, he begged his hearers to remember the importance of co-operation between medicine and physiology, and pointed out that every advance in physiology must inevitably mean an increase of power in dealing with those abnormal conditions met with in disease. He praised the memory of Huxley, and said he felt fully persuaded of the ultimate triumph of the new method of research.

The Lord Mayor attended in State to present the prizes and certificates at the opening of the 72nd winter session of the *Middlesex Hospital School*. The introductory address was delivered by Dr. Campbell Thomson, who took as his subject "Some Relations of the Hospitals to the Public." The legitimate qualifications for charitable medical attention were, he said, sickness and poverty, and the use of hospitals by those who had not the proper qualifications continued to inflict a wrong on those who gave and on those who had a right to receive. By this abuse of charity the already depleted funds of the hospitals were further drained and the members of the medical profession were defrauded of what they had every right to earn. No wonder that practitioners had come to look askance on hospitals instead of welcoming them as a valuable ally in difficult cases and as a means of bringing relief to the legitimate poor. There was a class in a position to pay small sums for a continuous attendance either directly to private practitioners or through the medium of clubs, but whose circumstances were such that they were unable to meet the expenses of any further advice or consultation. The most promising solution of the great out-patient problem would, he believed, be found as the co-relation of all different forms of medical relief for the poor. At the Middlesex Hospital, while doing all they possibly could in existing circumstances to prevent the misuse of charity, they were willing to co-operate in any scheme to place the matter on a more satisfactory basis. It was encouraging to know that such a movement was now on foot to affiliate the hospitals and provident dispensaries. It was to be hoped that the public, consultants and practitioners would all unite in trying to remove this burden from the medical profession and the medical charities. It was in the apathy of those who imagined they had no interest in the future of the hospitals that the danger lay. By stimulating their interest and securing their support the financial crisis which threatened at no distant date to drive the hospitals on the rates would be successfully averted.

Dr. Alcock, the Vice-Dean of the Medical School and Lecturer on Physiology, gave the address at *St. Mary's Hospital*. Speaking on the question of "The Theory and Practice of Medical Education," Dr. Alcock said it must be remembered that medical education was in reality only a branch of technical education in general. If they sought to plan a system of education for the medical profession they must consider what special knowledge and attributes were required in the practice of it. He took two classes—those of general practitioners, who might meet with any kind of case, and consultants, who only treated selected cases; and in regard to the former, a tabulated list showed that the disease, or rather "symptom," which was found most commonly was diarrhoea, and that disorders of digestion occurred five times more often than any other kind of case. Therefore, it was plain that every student should make a careful and exact study of the pathology, diagnosis, and treatment of diseases of this class. They would see that the direct use of the pre-

liminary sciences was small, but the indirect use very essential. In the list of consultants, the proportion of the cases had entirely altered, and the change in the character of individual cases was remarkable. There were no "trivial" cases, their place being taken by grave disorders. As for a student's training, there should be studies which gave a broader outlook and taught scientific methods—biology—and studies in which the actual facts learnt were required in practice—clinical medicine. He criticised the present curriculum, and approved of a reform whereby the syllabus of the preliminary and intermediate sciences should be revised and shortened, and the third year spent in taking an advanced course in any one of the sciences of biology, physics, anatomy, or physiology—and in one only. At St. Mary's Hospital they were very well satisfied with things as they were, except from the financial standpoint, and an endowment of some kind was needed. In this connection he announced that an anonymous donor had offered to pay £100 per annum for a scholarship for research in physiology, and a further £100 per annum for the expenses of the research, or for a second scholar for a period of two years.

Mr. Pridgen Teale was the orator of the day at *King's College Hospital*. The text from which the lecturer spoke was "*King's College Hospital: a Retrospect*," and in the course of his remarks he said it was 54 years since he sat in the hall of King's College listening to the opening address of his first medical session—a time preceding the Crimean war and the Indian Mutiny, when ideas as to the importance of hospital construction and sanitation, if they existed at all, were in their infancy. He was one of a very small number who had been through and taken part in the greatest medical revolution in surgical and medical practice and medical education that probably the world had ever seen. When the medical school of King's College was established there was no hospital, the students having to depend upon the hospitality of an alien hospital. The theatre served the double purpose of providing for operations and post-mortem examinations. Nursing, as calling for the need of careful training, was just coming into being. Ladies came to the hospital for training before going out to join Miss Nightingale in the Crimean War. He traced the remarkable growth of surgery and medicine during the past half-century, and called special attention to the improvement in hospital construction and management. The new hospital would be planned in the first instance for 408 beds, with a possible increase to 600. The preliminary estimated cost was between £300,000 and £400,000.

University College Hospital was introduced to a new session by a lecture from Professor Rickman Godlee on "*The Past, Present and Future of the School*." After dealing with the historical part of his subject, Mr. Godlee said that their future lay "on the knees of the gods," but they must not forget that they were reaching finality, and must shape their course on this supposition. He thought the ideal thing was to have just the right complement of first-rate students and teachers of the best quality. There was an entry accommodation of 80 students a year, which would mean 550, allowing for changes. In order that all causes of complaint should be removed, however, more money was wanted both for the hospital and the school.

Professor Byres, of Belfast, delivered the opening address at the *London School of Medicine for Women*. He referred to the early struggle

of women doctors and spoke of the remarkable progress of the school, and of the traditions which had been created in connection with it. Continuing, he said the highest aim of education was to make students good citizens, who felt they were inspired with a self-possessed trust for the benefit of others. There never was a time when there were greater opportunities for women in the medical profession than at present. There were many pressing public health questions waiting solution, in which he believed medical women would find ample scope for work. Two of those problems were medical inspection and supervision of school children and infant mortality. The Education Bill—whatever one might think of it in other respects—established for the first time in England the principle that it was the duty of the State to look after the health and to promote the development of children compelled to attend school. Some local authorities had already adopted systems of inspection at schools, but the practice was by no means general and, of course, it was not yet compulsory. It was to Scandinavia, Denmark and Germany they owed so much information as they had in reference to the health of school children. In this direction Professor Byres drew attention to the step taken in Philadelphia, where children are in future to be examined as to both their bodily and mental condition. Surely, he said, in such important work as school inspection there were ample openings for medical women, and their special capacity for undertaking such work had been already recognised by the London County Council giving six out of twenty appointments in this connection to medical women. Infantile mortality was one of the greatest national health problems of the present day, and in the solution of the question they had learned almost everything from France, where the most completely organised methods had been adopted to prevent the wastage of infant life. He was confident that in the future medical women would take a large share of the work in the campaign to get rid of such a largely preventable sacrifice of life. Artificial nourishment of children must always be regarded as a misfortune, and the milk depôt ought to be an institution for the education of women. It was noteworthy that in Japan—a country which adopted the best from all other countries—the children were nourished by their mothers.

The winter session of the Medical School at *St. George's Hospital* was opened by the Bishop of Bristol. He congratulated the students on being face to face with their professional preparation for a career which each year became more scientific and, therefore, more interesting. As secretary of the University of Cambridge Commission of 1877, he knew what vast possibilities of profound research had been opened in Cambridge, and they had been made the most of. As medicine passed boldly from mere experiment to solid ground it became a more and more interesting and fascinating study. As surgery developed under the marvellous researches and experiments of the laboratories it reached to successes never dreamed of in old times. Speaking to students of a London School, he was especially glad to see the words "*University of London*" on their notice. In thus becoming part of the University of London students were indeed entering upon a citizenship of no mean city, and he hoped they would have a clear eye to the duties and responsibilities which that citizenship imposed. The medical profession had this indissoluble link with those who were called upon to exercise spiritual functions—that the greatest physician of the body the world had ever seen was one and the

same with the eternal physician of the soul. The physician and surgeon of to-day were following in the footsteps of that Great Physician, and, consciously or unconsciously, were striving to do by the means at their disposal, whether instantaneously or spread over weeks and months, the same kind of work. He was delighted beyond measure at every new discovery in the world of physics and chemistry, for he saw in them something that not only strengthened his own faith but gave vividness to the way in which his own faith spoke to him. So, in all their speculations and investigations, he urged them to give a fair chance to the spiritual line which was parallel to their own.

Among addresses to provincial schools, those which have attracted most notice were delivered by Dr. Donald MacAlister, who spoke at the Victoria University of Manchester on "The General Medical Council: Its Powers and its Work," and Sir James Crichton-Browne, who descended at the Medical School of the University of Leeds on "Materialism in Medicine."

The proceedings in connection with the opening of the *Pharmaceutical Society* were presided over by the President (Alderman Robinson). The sessional address was entrusted to Sir George Watt, Reporter on Economic Products to the Indian Government. Speaking from his experience of 25 years' residence in India, Sir George urged that a good comprehensive general knowledge of pharmacy was the best equipment for those who were going to follow the profession of pharmacy in that country. It was not well to begin specialisation at too early an age. To the European in India occupying the position of an administrator, an essential quality of success was the ability to direct the work of others. He described at length the customs of the native druggists, who were generally to be found in a little hut about eight feet square, surrounded by a multitude of mysterious jars and boxes, from which they dispensed their medicines or charms. The native druggist was both physician and apothecary, and knew more of the sufferings and crimes of the village than any other member of the community. He was an attractive personality with a halo of mystery surrounding his life. He had been trained in no college; his knowledge was hereditary, having been handed down from father to son from generations. Bearing in mind the slow output of physicians from the native colleges, Sir George estimated that it might be 200 years before Western medical skill could reach the remoter parts of the Empire. Accordingly the duty devolved upon pharmacists of investigating the properties of the indigenous drugs of that country, with a view to ascertaining those which were most suited to the diseases of the people. The use of indigenous drugs ought to be recommended rather than foreign substitutes, which were mostly beyond the reach of the people. With a very few exceptions the native drugs had never been the subject of experiment, and there was a great opening for a new work in this field.

Lord Carrington, the President of the Board of Agriculture, presided at the inauguration of the winter session of the *Royal Veterinary College*, where the opening address was given by Professor Woodroof, who said that the institution was now in a position unique in its history, as they were for the first time receiving a Government subsidy of £800 per annum. Small as the amount was, he could well imagine that with the revival of the spirit of economy in high places, there would be some who would ask what justification there was for a grant of public money when mechanical traction was rapidly replacing the horse. There were candid friends who predicted that they would have to convert the

veterinary college into an engineering academy. In enumerating the need for their special knowledge and training in the interests of the community, he mentioned in particular the efficient inspection of meat and of the milk supply. The man in the street, who lifted his hands in horror concerning the Chicago revelations, was quite unmindful of the fact that in this country only in a few enlightened cities and towns was there any regular system of meat inspection. Veterinary surgeons knew better than anyone else what that meant, and how the carcases of diseased cattle, which would be condemned if submitted to efficient inspection, were dressed and exposed for sale with impunity. The Medical Officer of Health was the first to admit his inability to properly inspect live animals; and as for the nuisance inspectors, a return laid before the Tuberculosis Commission showed that in Battersea the previous occupation of such officials was in four cases that of plumber, and in three that of carpenter. In Hackney, of those who had discharged the duties of meat inspector two had been carpenters, one a florist, another a compositor, one a builder and one a stonemason. No wonder the Commissioners reported the need for pathological training as the proper basis of knowledge for a meat inspector, and advocated that where possible veterinary surgeons should be employed. A pure milk supply was even more important than sound meat, and, as Sir J. McFadyean had pointed out, the owner of a cow in the most advanced stage of tuberculosis might sell that cow's milk as long as the sale had not been specially interdicted on the certificate of a veterinary surgeon. He pleaded for uniformity in regulations to prevent diseased animals in a closely inspected district being sold into another district without let or hindrance. The veterinary profession could point with pride to the almost entire absence of many of those contagious diseases which in the past had caused so much loss to stockowners; they could reasonably claim to advise in dealing with those diseases of animals which still remained, and he contended that the services of well-equipped veterinary surgeons were never more needed than now in the public interest.

The Sheriffs Elect of the City of London—Alderman Dr. Crosby and Mr. W. H. Dunn—were presented on September 26th with their chains of office and badges. The presentation to Dr. Crosby was made by Lord Avebury in the Vestry Hall of St. Dionis Backchurch, Lime-street, E.C. Weighing 30 oz. and measuring about 48 in. in length, the chain, which is of gold, is composed of 30 monograms of reversed C's, this being the initial of the Sheriff elect. Between these monograms are six medallions bearing in heraldic enamels the arms of the City of London, the Turners' Company, St. Andrew's University, the Royal College of Surgeons, the Society of Apothecaries and St. Thomas's Hospital. In making the presentation, Lord Avebury said that it was 30 years since Dr. Crosby was elected a member of the Court of Common Council; he was made Alderman as soon as there was a vacancy, and they hoped he would live to be Lord Mayor. Local authorities had most important and multifarious duties to perform—possibly they occasionally stepped a little out of their way to undertake duties which might very well be left to others. It might be asked why a medical man, however eminent, should be sent as their representative on the Common Council. Not the least important, however, of the multifarious duties of a local authority was the public health. Particularly was that the case in great and crowded districts. In that respect they differed much from their nestors.

It was said that St. Etheldreda was made a saint because she never washed, except perhaps before some great festival of the Church. Their opinions were very different now, and medical men served actively and usefully in local government. Dr. Crosby replied.

At the Congress of National Research and Medicine, held this year at Stuttgart, Professor Garré, of Breslau, delivered a noteworthy lecture on the transplanting of blood vessels and organs, a topic which has recently attracted considerable attention. In the course of his remarks, Professor Garré traced the development of the idea of transplanting, and related a case in which a child of four years suffering from cretinism, had a portion of its mother's thyroid gland transplanted into its spleen. After nine months the child commenced to develop intellectually and to walk and talk. The transplanting of the thyroid gland was a simple matter, owing to the fact that a portion of the thyroid gland can always be safely removed from a living person. He narrated a number of successful experiments in transplanting the blood vessels of animals. He had, he said, succeeded in removing blood vessels six centimetres long from live animals and from animals which had been dead an hour and a half, to other animals. While it was not possible to remove and transplant large blood vessels from living human beings, yet blood vessels could be taken from freshly amputated limbs. Such transplanting would be of great use in many cases, especially where large vessels have to be ligatured and where the tissues fed by these vessels have their vitality threatened by the withdrawal of their blood supply. Professor Garré described experiments which he had made in transplanting kidneys. He had removed the kidney of a dog and sewed it in the same animals' neck, so that the nephritic artery was joined to the carotid artery and the nephritic veins to the veins of the neck. He had further sewed the kidney of a dog in the body of another dog, joining the urethral canal with the bladder. The experiment had been so successful that the transplanted kidney had performed its natural functions perfectly.

On September 18th the *London Gazette* announced the appointment of a Royal Commission to inquire into and report upon the practice of subjecting live animals to experiments, whether by vivisection or otherwise, and also to inquire into the law relating to that practice and its administration, and to report whether any, and, if so, what changes are desirable. The Commissioners are as follows:—Viscount Selby (chairman), Colonel Lockwood, C.V.O., Sir William Selby Church, Bart., M.D.; Sir John McFadyen, Mr. Mackenzie Dalzell Chalmers (one of the Under Secretaries at the Home Office), Mr. Abel John Ram, K.C.; Mr. Walter Holbrook Gaskell, M.D.; Mr. James Tomkinson, and Mr. George Wilson, M.D. Captain Charles Clive Bigham is appointed secretary of the Commission.

The War Office announces that existing vacancies in connection with Queen Alexandra's Imperial Military Nursing Service will be filled at once, as follows:—

	Initial Rate.	Annual Increase.	Maximum
Matron-in-Chief	£300	£10 0	£350
Principal Matron	175	10 0	205
Matron	75	10 0	150
Sister	50	5 0	65
Staff Nurse	40	2 10	45

A matron or sister in charge of a hospital will also be granted charge pay at a rate not exceeding £30 per annum, according to the magnitude of her charge. Furnished quarters and servants are provided, and allowances are given for board, for uniform and for

washing. All members of Queen Alexandra's Imperial Military Nursing Service are required to take their turn of foreign service. Applicants must be of good social position, and between the ages of 25 and 35, and must possess a certificate of not less than three years' training and service in medical and surgical nursing in a civil hospital of not less than 100 beds, and recognised by the Advisory Board.

In the Court of Session at Edinburgh Lord Salvesen has decided that the lady graduates of the Scottish Universities are not entitled to vote at a Parliamentary election, although they have matriculated and passed all the examinations open to men. The lady graduates of Edinburgh and St. Andrew's Universities raised an action for a declaration that they were entitled, on the occasion of any future election for a member of Parliament to represent the two Universities, to receive voting papers from the Registrar, and to have their votes recorded. Lord Salvesen, in finding for the defendants, said that the whole of the plaintiffs' action turned upon the construction of the word "person" in the Act of Parliament of 1868. He agreed that in any ordinary statute that word would be presumed to include individuals of both sexes, but the context proved that in this instance it was limited as meaning only male persons. In his opinion, the Registrar was bound to issue voting papers only to persons who were qualified to vote. His Lordship hoped that he might console the plaintiffs for their want of success if he reminded them that the legal incapacity of women to vote at Parliamentary elections did not, in the opinion of a very learned Judge, "arise from any underrating of the sex either in point of intellect or worth," but was an exemption founded on motives of decorum, and was a privilege of the sex. He said that "the absence of such a right was referable to the fact that in this country in modern times, and chiefly out of respect to and a sense of decorum, they have been excused from taking any share in the department of public affairs." If that were so, his Lordship was afraid that this action, if it had served no other purpose, had at least demonstrated that there were some members of the sex who did not value their common law privileges.

A QUESTION IN LODGE PRACTICE.

(To the Editor of the *Australasian Medical Gazette*.)

Sir,—Will you kindly inform me (and others who may be interested) as to the following:—

In visiting a lodge member beyond the non-chargeable radius can a separate mileage fee be charged if a second member of the family (also a lodge member) consults the "lodge doctor"? Could it be argued that although the second member is on the spot when the first is visited, he or she is at the time beyond the non-chargeable radius?—I am, etc.,

13/12/06.

C.P.

[We think that the lodge doctor could hardly charge a second mileage rate under these conditions.—ED. A. M. GAZETTE.]

THE OUTLOOK FOR THE PROFESSION IN AUSTRALIA.

(To the Editor of the *Australasian Medical Gazette*.)

Sir,—In your editorial on the above subject in your December issue you overlook one important factor—the very slow increase in the population of Australia.

I have obtained statistics which show that the number of medical men in proportion to the total

population is gradually increasing, and during the next few years this alteration of ratio will become more marked on account of the very large number of medical students that have lately entered our universities. At present we have over 600 students at our three medical schools, and about 200 of them entered as first-year students this session. The result of this increase will be appreciable in the not far distant future.

The only way by which the balance can be readjusted is by immigration on a huge scale, and for this reason every medical man should be an enthusiastic supporter of the work of the Immigration League of Australia. The main object of the League is to promote the immigration of farmers and agricultural labourers from Europe in order to develop the country and increase primary production. These are the true wealth producers, and a steady stream of them flowing into Australia would undoubtedly increase greatly the general prosperity, and react also on the outlook of the medical profession. The members of the profession should recognise that it is to their interest to encourage immigration. They can do this in various ways. For instance, they can use what political influence they have to bring pressure to bear on the various Governments in Australia to induce them to embark on a vigorous policy of State-aided immigration; they can advertise Australia among their friends in Great Britain and elsewhere, recommending them to send their sons out here to settle on the land; and they can support by active work or financially the Immigration League of Australia, which has branches in New South Wales and Queensland, and will soon have others in Victoria, Tasmania, and Western Australia. I may add that the suggestion which led to the formation of the League came from a Sydney medical man, Dr. Russell Nolan, of Macquarie-street, and that the first person who gave generous financial support, and thus enabled the League to enlarge its operations, was Mr. Norman Cohen, of the well-known firm of Elliott Bros., wholesale chemists.

It can thus be seen that the movement, which has spread all over the world, originated in the medical profession.—I am, etc.,

RICHARD ARTHUR, M.D.,

President Immigration League of Australia.

211 Macquarie-street, Sydney,
Dec. 24th.

INITIALLING OF PRESCRIPTIONS.

(To the Editor of the *Australasian Medical Gazette*.)

Sir,—I again appeal to you to publish a short letter on doctors initialling their prescriptions instead of giving their full name and address. A most regrettable case came to the notice of the Council of the Pharmaceutical Society at their last meeting. During a confinement case the doctor had occasion to order an overdose of ergot. He sent the prescription to a pharmacist, but he omitted to sign the prescription with his name, giving initials only, and he did not initial the overdose. The pharmacist did not know the initials, and in spite of his honest endeavours to communicate with the doctor he failed to do so. Delay was the consequence, and, according to the statement of the doctor, this delay might have been fatal to the patient. Incidents occurred too long to detail in a short letter, but the facts remain, namely, that a woman's life was in danger; the pharmacist not knowing this, did not care to dispense the prescription on account of its dose, and had no means to communicate

with the doctor, as no name was given on the prescription. When the doctor called at last on the pharmacist for an explanation why the medicine had not been sent, hot words were evidently used, the doctor as well as the pharmacist believing themselves in the right; they fell out, the woman suffered, and the reason of it all—no name on the prescription and the overdose not initialled. Let me make a strong appeal to the medical profession to sign their prescription with their full name and address. If there is a reason why they should not sign their names let it be known, so that a remedy may be found and such incidents as the above for the future be avoided.—Thanking you for your courtesy, I remain, yours faithfully,

A. FORSTER,

Secretary Pharmaceutical Society of New South Wales.
Sydney, January 17th, 1907.

Medico-Ethical and Medico-Legal.

Unfounded Charges against a Medical Man.

—From the Rockhampton *Morning Bulletin* of January 8th, 1907, we learn that an action was brought against Dr. Vivian Voss for £2000 damages for alleged malpraxis. The statement of claim, which was delivered on October 23rd last, set out that the plaintiff, who resided at Hollybrook, Raglan, met with an accident about January 29th last, near Langmorn Station, Raglan, and, as a result, broke her left leg above the ankle and sustained other personal injuries. About January 29th the defendant, it was alleged, undertook, for reward, to properly treat the plaintiff for the injuries; but he negligently, improperly, and unskilfully treated her, in consequence of which she had been partially crippled and had suffered serious damage. When the case was called on, counsel for the plaintiff said: With your leave, your Honor, I mention the case of Ida Minnie Creed against Francis Vivian Voss. I have to announce that the action has been withdrawn, and, at the same time state that the plaintiff withdraws all charges of malpraxis and negligence against Dr. Voss as laid, charged, and set out in the writ, statement of claim, or particulars supplied in orders to the Court on the 31st of October and the 7th of December, as the said charges are untrue and wholly unfounded. It is an announcement that I am very pleased to be able to make for personal reasons. Counsel for defendant: I appear for the defendant, and I accept the unreserved withdrawal. His Honor: I am very glad to hear that the case has been settled. We sincerely sympathise with Dr. Voss in the ignominious position in which he was placed, and congratulate him upon the completely successful issue of the case.

We are glad to note that the charge made against Dr. Chisholm Ross, of Sydney, in a recent divorce case, has been proved to be entirely groundless, a confession having been made by one of the conspirators that the charge was one of blackmail.

Adulterated Milk.—The President of the Board of Health, Dr. J. Ashburton Thompson, has reported to the board that acting upon information received from the Sydney Labour Council, he had directed a raid to be made, and that the result had been that out of 26 samples taken from 19 carts on the same morning, 14 samples were found to be adulterated. It was directed that the papers be referred to the Crown Solicitor for prosecution.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, the Medical Officer of Health, reports for December, 1906:—Deaths registered in the metropolitan municipalities, exclusive of those in Gladsville and Callan Park Hospitals for the Insane, numbered 475. The annual death rate corresponding to this figure is 10·54 per 1000 of the estimated mean population, or, when corrected for the metropolitan proportion of deaths in benevolent and lunatic asylums, both inside and outside the metropolis, 11·40 per 1000. The mortality from diarrhoeal diseases reached the total of 83. This included 74 deaths from enteritis and 9 from diarrhoea. The total mortality under this heading was greater than in December, 1905, but less than in any previous December since 1898. Infectious diseases, other than diarrhoea, caused 19 deaths, of which typhoid fever was responsible for 7, diphtheria for 2, whooping-cough for 2, puerperal fever for 4, and measles, scarlet fever, influenza and cerebro-spinal fever for one death each. The mortality from phthisis (27) was lower than usual, but cancer, which caused 42 deaths, and Bright's disease (34 deaths) were both more fatal than usual. Respiratory diseases were responsible for 31 deaths, of which pneumonia caused 23 and bronchitis 8. These figures do not vary greatly from the averages for December. Deaths of infants numbered 133, which is equivalent to an infantile mortality rate of 118 per 1000 births. The most important causes numerically of infantile deaths were: Enteritis 54, developmental diseases 29, and prematurity 20. Notifications of infectious diseases numbered 193. Scarlet fever is declining, and only caused 106 attacks, compared with 167 in November. Diphtheria caused 47 attacks and typhoid fever 40. Typhoid fever has been less prevalent than ever before in December. The number of attacks was less than half the average of previous years. Within the city of Sydney 12 cases of pulmonary consumption were notified under the City Council's by-laws. Four dwellings were disinfected after occurrence in them of deaths from consumption and two dwellings after removal from them of living consumptives.

Anthrax at Cootamundra.—Anthrax has broken out amongst local stock. A man named Patton has died of anthrax in the hospital, and since his death another man, named Wennerbom, who lived a few hundred yards from Patton, has developed signs of anthrax poisoning. He was taken to the hospital. It

is believed he skinned one of the affected beasts. This district has been singularly free from anthrax. The trouble is supposed to have been brought by travelling stock. The borough council has decided to ask the Health Department to send an officer to investigate the matter, and has further decided to close all the dairies in the affected area.

Bubonic Plague.—Two more cases of plague (the first since October 6th) has come under the notice of the authorities. A married man, aged 38, living in Surry Hills, was reported ill on December 26th, and was conveyed to the Coast Hospital, where his ailment was diagnosed as plague. He was engaged in a store in York-street in a block from which plague rats were obtained in October last. The area is not a new one as regards infection, because it is believed to have connection by old drains with the Darling Harbour frontage. The usual cleaning operations will be carried out when once the source of infection is traced.

The Sydney Water Supply.—Dr. Stokes, Medical Officer for the Board of Water Supply and Sewerage, reports as follows:—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, December, 1906:—

Colour	16° Brown.
Clearness	Marked.
Odour	Nil.
Suspended matter	Very slight.
Total solids	8·0000
Chlorine	3·1500
Free ammonia	·0004
Albuminoid ammonia	·0096
Nitrogen as nitrites	·0000
Nitrogen as nitrates	·0107
Oxygen absorbed in 15 minutes	·0222
Oxygen absorbed in 14 hours	·0571
Permanent hardness	1·9
Total	2·8

NOTE.—Parts by weight per 100,000.

2. Bacteriological examination of samples of water as it leaves the Catchment area, and from the canal, December, 1906:—

	Average No. of Bacteria per c.c. growing at		Ratio
	37° C	Room tem.	
Cataract River at Broughton's Pass	49	83	1 : 1·7
Outlet Nepean Tunnel	58	129	1 : 2·2
Canal at Kenny Hill	145	309	1 : 2·1

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during December, 1906:—

Final Effluents from—	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification.		Incubator Test. Seven days at 37° C.
			Total Solids.	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Nitrogen as		Oxygen Ab- sorbed in		Albuminoid Ammonia.	Oxygen ab- sorbed in Four hours.	
							Nitrites.	Nitrates	Three Minutes.	Four Hours.			
Chatswood ..	.. Mrk'd	Nil	34·2	11·0	2·650	·237	·008	·030	·328	1·016	80·9	64·5	Decomposed
Folly Point..	.. Slight	Nil	66·8	10·6	2·180	·122	·020	1·400	·186	·752	88·9	81·5	No decomposition
Balmoral ..	.. Slight	Nil	53·0	13·4	1·740	·225	·040	2·170	·163	·538	86·4	85·0	„ „

South Australia.

Central Board of Health.—At a meeting of the Central Board of Health on December 19th, the secretary, Local Board, town of Gladstone, wrote notifying that Dr. Chancellor had resigned his position as officer of health for Gladstone. The chief inspector furnished a report on 16 tramway termini in reference to lavatory accommodation provided at them. He found that at only two were any privies specially set apart for the public, viz., at Henley Beach and Hyde Park. At Kensington and North Adelaide, it was pointed out that no accommodation was required, as the cars left every few minutes. The same officer furnished a report in reference to a memorial from residents sent to the West Torrens Local Board, complaining of smells from slaughter-house at Cowandilla. In company with the secretary of the Local Board he made an inspection of the premises, and found them in a very fair sanitary condition, but there is a difficulty in disposing of the offal. The plan adopted has been to cover the offal with straw and then clay, which has been taken out of the trenches, but the dry weather has cracked the clay, and an offensive smell is being emitted through the cracks. The secretary was directed to forward copy of the report to the Local Board, and recommend that the offal be covered with mould to assist its inoffensive decomposition.—At a meeting of the Central Board of Health on January 9th, the board approved the following appointments as officers of health:—For the district of Nairne, Dr. F. Chapple; for the town of Laura, Dr. Dan Dawson; for the district of Morgan, Mr. W. Beaumont. Dr. P. C. Boyd called attention to the situation of the township of Denial Bay, and stated that the whole flat (sandy) was thoroughly polluted by decayed animal and vegetable matter, and as more buildings were being erected he trusted that a postponement would be ordered until a report by a competent officer had been obtained. The Commissioner of Police was asked to obtain a report from the local constable. The chief inspector furnished a report on the township of Balaklava, which showed that the township was fairly clean. Rainwater was the only supply for domestic use, and there were wells for watering stock. There were a number of deep pits for nightsoil, but most of the new houses had movable receptacles, and the secretary of the local board stated that the local board contemplated the adoption of an up-to-date system for the township. The inspector of foods and drugs reported having examined the spirits exhibited for sale at the Brighton Inn, Brighton-road, and found the following three samples to be below the standard strength allowed by law:—Hennessy bulk brandy, 40·4 underproof; Hennessy star brandy, 39 underproof; Burke's whisky, 27 underproof. The landlord forwarded a letter offering an explanation. The board directed that information be laid. The Under-Secretary notified the appointment of Dr. Strangman as health officer, Port Darwin, vice Dr. Fulton, resigned.

Queensland.

Bubonic Plague.—Dr. B. B. Ham, the Commissioner of Public Health, reports for the four weeks ending January 5th, 1907:—*Brisbane.*—One fatal case of plague was reported during the period. A further case was reported on January 3rd. (1) K. J., æt. 21 years, male, resident at Leichhardt-street, Spring Hill, and was employed as a hairdresser at George-street, city, reported by Government Medical Officer,

after post-mortem examination. Bacteriological examination specimens from gland and spleen revealed presence of *B. pestis*. (2) J. T., æt. 17 years, male, resided at Edward-street, West Paddington, and was employed as an office boy at a painter's shop, Queen-street, city. Case reported on January 3rd, 1907. Bacteriological examination of specimens revealed the presence of *B. pestis*. Patient removed to the plague hospital on 3rd instant. *Summary.*—Number of cases, 4; number reported during week, 1; number of deaths, nil; remaining under treatment, 1; date of last case, January 3rd, 1907; date of previous case, December 16th, 1906. A plague-infected rat was found on the premises of a butcher's shop situated at Spring Hill, city. The last infected rat was found on January 10th.

New South Wales Institution for the Deaf and Dumb and Blind.

THE forty-fifth annual report of the above institution for the year ended September 30th, 1906, states that the total number of children who have been under instruction during the year has been 112; discharged during the period, 18; and the number remaining on the roll was 94. The past year was satisfactory from a financial standpoint. The income on the general fund account (less: £38 18s 2d transferred to reserved interest account) was £5144 6s 5d, and the expenditure (including the building fund and the balance from last year) was £5264 1s 6d, leaving a balance overdrawn at the bank of £119 15s 1d, as against £110 3s 1d the preceding year. The present debt on the building for the adult deaf is £1889 8s 5d. The directors regret that a great many children who ought to be in school are not brought to the institution. No fewer than 75 children of school age are known to be growing up without any education, and doubtless there are many others in the State of New South Wales. The attention of the Government has been drawn to the necessity for an Act of Parliament to compel parents of deaf and dumb and blind children to have them educated. In Great Britain there is a compulsory Act for the education of children so afflicted, and a similar Act has been passed by the Legislature of Tasmania.

Royal College of Physicians of London.—The Weber-Parkes prize and medals.—Prize of 150 guineas and two silver medals.—The next award will be made in 1909, and the adjudicators have selected as the subject of the essay for that occasion "The Value of Bacterial Products in Protecting against or in Curing Tuberculous Diseases, with special reference to Pulmonary Tuberculosis in Man." The essay must be based on original work and observations (experimental or other) of the author, and must include a detailed exposition of the methods employed and their mode of application. All essays, together with any preparations made in illustration of them, must be transmitted to the Registrar of the College during the last week of May, 1909, in accordance with the regulations relating thereto, copies of which will be forwarded from the College on application. The award will be made on some day previous to the 18th October in that year.—EDWARD LIVEING, M.D., Registrar. Pall Mall East, S.W., December, 1906.

Messrs. Donald Ross & Co., Ltd., have succeeded to the business lately carried on by Messrs. Zoeller & Ross, surgical instrument makers, of Angel Place, Sydney.

HOSPITAL INTELLIGENCE.

Hobart General Hospital.—At the ordinary monthly meeting of the Board of Management of the Hobart General Hospital held last month the report from the visiting committee stated that in response to the advertisement inviting tenders for the painting, etc., of the external portions of the hospital buildings, five tenders were received, and, as requested by the Hon. the Premier, were submitted to the Government. Mr. E. P. Maher's tender was accepted, and the work is now in progress. In connection with the nursing staff, the committee has to report that an application from one sister for increased pay was considered and not recommended, as the funds of the hospital would not admit of any increase being granted. Further, if any increase had been made it would have led to dissatisfaction with other sisters and nurses. The pay now being given is in accordance with the rate approved by the board and the Government. The salary abstracts and accounts for the month of November, amounting in all to £520 10s 8d, were passed for payment. The fees collected during the month amounted to £115 8s, and at December 1st the sum of £319 0s 7d remained on the books for collection. During the month 212 patients have been treated in the hospital. Of this number 6 died and 113 were discharged, leaving in the institution on December 1st 53 males and 40 females. The daily average number of occupied beds was 95, as compared with 85 during November last year, and 84 in 1904. In the out-patients' department 118 new cases were treated; casualties, 37. Total attendances, 414. The report was adopted.

Launceston General Hospital.—At a meeting of the Board of Management of the General Hospital last month it was reported that during November 211 in-patients were treated, and 127 new outdoor cases. Eight patients died. The finance committee reported that the amount received during the past five months was £808 0s 1d, as against £768 19s 7d for corresponding period last year. The committee recommended that the offer of the Chief Secretary to have investigation made by Government officer as to ability of patients to pay fees which had been outstanding, say, three months, be cordially accepted. The visiting committee reported that steps had been taken to furnish a room for a nurses' study. Specimens, books, etc., had been acquired, and from time to time more would be added. Dr. E. J. Howley, late honorary physician of St. Vincent's Hospital, Dublin, was appointed honorary physician to this hospital in place of Dr. C. Parker, resigned. The chairman mentioned that the new operating theatre would be commenced early next year, and would be completed within six months.

Royal Alexandra Hospital for Children, Sydney.—The Royal Alexandra Hospital for Children was officially opened by his Excellency the State Governor last month. The administrative block, which occupies the centre of the main frontage, contains on the ground floor, the necessary receiving and examination rooms and superintendent's and matron's and general and boardroom, over which are residential quarters for the medical staff and accommodation for the honorary medical officers. Two wings extend to the rear from the administrative building, one containing the dispensary and drug and splint stores, operating rooms, X-ray apartment and sterilising room, and the other the kitchen, scullery, pantries, larders and storerooms, etc. On the left of the administrative block, and immediately connected with its receiving and examination rooms, is the special pavilion containing four separate small wards of eight

beds each, in which patients will be placed for the necessary few days following their admission, to ensure their having no latent infectious disease, before their being transferred to the main pavilions, thus preventing the risk of infecting the larger wards should any such contingency arise. Immediately at the rear of the wings of the administrative block runs the central main corridor of the hospital, giving access at present to the two main medical and surgical pavilions, and extending towards the west to the pathological building, and to the laundry and engineering block, and capable of extension in the future eastwards to the future third pavilion and the nurses' home. Under this main corridor a subway has been formed, through which are conveyed all the main water and steam and gas pipes, and electric conduits, etc., thus affording ease of access to all of these for repairs, etc. The main medical pavilion contains two principal wards, each of 18 beds, two smaller wards each of four beds, and two observation or separation rooms, each of two beds, making a total of 50 beds. The main surgical pavilion contains two principal wards each of 16 beds, two smaller wards each of four beds, and two observation or separation rooms, each of two beds, making a total of 44 beds. The total present accommodation, therefore, will be for 94 cots or 126 cots when the special pavilion is set free for patients by the erection of the nurses' home. Both of these main pavilions and the special pavilion are flanked by very spacious verandahs and balconies, capable of containing a row of cots, and so of being utilised for sleeping out, for which further provision has been made by wide doorways from the wards to each between every pair of cots, so that they may be wheeled out. In attachment to the pavilions are the necessary ward kitchens, linen rooms, and sanitary towers, and in the surgical pavilion also special rooms for surgical dressings. The laundry and engineering building is being fitted up with the most modern appliance under the special supervision of Mr. Houghton, and will include the latest type of laundry machinery. The generation of steam for steam-heating in the wards and kitchen, etc., and for driving the machinery is by a Babcock and Wilcox boiler in the basement of the engineering block, where also are the necessary engineers' and carpenters' shops. A patients' lift has been provided in attachment to the surgical pavilion. Special attention has been paid to the sanitary plumbing, which has been carried out in cast-iron and brass, and not in lead, so as to stand the exceptional strain of the hot water and steam. The kitchen fittings include a large Hubbard's stove, a steam closet, and vegetable steamers, hot table, etc., while, in addition to the pantries and larders, a special cold store has been installed. The isolation cottages provide for the isolation of infectious cases that may develop until they can be removed to the Coast Hospital.

St. Vincent's Hospital, Sydney.—The forty-ninth annual report upon the work of the St. Vincent's Hospital for the year ended December 31st has just been issued. The patients remaining in hospital on December 31st, 1905, 129; admitted during the year 1906, 1780; total under treatment, 1909; discharged, cured 1260, relieved 407, unrelieved 17; died, 95; remaining in hospital on December 31st, 1906, 130; total, 1909. The number of operations performed during the year was 1049, not including numerous minor operations performed at the outdoor department. Of the deaths above mentioned, 11 occurred within 24 hours of admission, the rate of mortality per cent. on all cases under treatment was 4.97. In the outdoor department 11,072 persons were

treated, and the attendances of these numbered 32,184. Following are the different departments with numbers treated in each:—Medical, 2679 patients, 8286 attendances; surgical, 2347 patients, 6321 attendances; ophthalmic, 2106 patients, 6597 attendances; ear, nose and throat, 1705 patients, 4582 attendances; casualty, 2235 patients, 6400 attendances. Total number of distinct persons treated indoor and outdoor during the year, 12,981, with attendances as above. The indoor patients show an increase of 56 on the previous year. Of the indoor patients 560 were admitted upon subscribers' orders, 350 destitute cases were admitted from the outdoor department, the remainder of the patients contributed towards their maintenance. Financial: The only unsatisfactory part of the report is, the hospital funds show a deficit of nearly £700, the expenditure exceeding the revenue by that amount during the year.

Royal Hospital for Women, Sydney.—At the monthly meeting of the Board of Directors of the Benevolent Society the particulars laid before the board showed that at the Royal Hospital for Women, Paddington, during December, 153 inpatients had been treated, 52 children being born in the obstetric department. In the outpatients' department, 142 patients had been dealt with, and in the outdoor infants' department, recently established, 38 infants had been examined by the surgeons, while the district nurses attached to the hospital had personally attended upon 14 mothers in their own homes. Dr. Susie H. O'Reilly, M.B., Ch.M., was appointed by the board to succeed Dr. Constance E. D'Arcy as resident medical officer at the Royal Hospital for Women.

Kalyra Sanatorium, S.A.—The following is the medical report for the year ending June 30th, 1906, by Dr. C. Reissmann:—There were remaining under treatment on July 1, 1905, 16 males, 14 females, total 30; admitted during the year, 48 males and 69 females, total 117—147. There were discharged, arrested, 15 males and 17 females—32; improved, 15 males and 29 females—44; unimproved, 18 males and 22 females—40; died, 3 males and 1 female—4; transferred or discharged at own request, 3 males and 2 females—5; remained under treatment on July 1st, 1906, 10 males and 12 females—22; total, 64 males and 83 females—147. By arrest is meant absence of all evidence of disease other than fibroid transformation of the lung or scarring. To be discharged with disease arrested, a patient must answer to the following tests:—There must be no evidence of active disease in his chest or elsewhere, no râles, rhonchi, or other adventitious sounds must be audible. He must have neither cough nor expectoration, and therefore also no tubercle bacilli may be detected. His pulse, temperature and respiration must be normal before and 20 minutes after returning from hill-climbing exercise. The word "improved" refers to the condition of the patient's lung. Gain in weight *per se* has not been taken as evidence of improvement, as every patient is expected to increase in weight. These tests, though severe, are necessary. The following table shows the result of treatment at the time of discharge:—

Stage of Disease on Admission.	Total Cases	Disease Arrested.	Improved	Unimproved.	Died.
Class I ..	36	27 (75%)	5 (13·9%)	3 (8·3%)	1 (2·8)
Class II ..	39	5 (12·9%)	21 (53·9%)	13 (33·3%)	0
Class III ..	44	0	18 (40·9%)	23 (52·2%)	3 (6·8%)

Tl. dischgd. 119 32 (26·9%) 44 (36·9%) 39 (32·8%) 4 (3·4%)
Remain under treatment, 22; left at own request, 6; total treated, 147.

The classification adopted is that of Turban. Class I includes those with slight lesion extending at most to the volume of one lobe or two half-lobes. Class II, slight lesion extending further than in Class I, but at most to the volume of two lobes; or severe lesion extending at most to the volume of one lobe. Class III, all cases with more extensive or more severe lesions than in Class II. By "slight lesion" is understood disseminated centres of disease; by "severe lesion" is understood consolidation and excavation. The following table shows the state of health of discharged patients at the present date:—

Stage of Disease on Admission.	Total Cases.	Now in Good Health.	Health Fair.	Bad.	Died.
Class I ..	36	28 (77·8%)	7 (19·4%)	0	1 (2·8%)
Class II ..	39	17 (43·6%)	17 (43·6%)	2 (5·1%)	3 (7·7%)
Class III ..	44	3 (6·8%)	13 (29·6%)	7 (15·9%)	21 (47·7%)

Tl. dischgd. 119 48 (40·3%) 37 (31·1%) 9 (7·5%) 25 (21%)

This information has been derived from the personal statement of patients or of their friends by means of reply-paid post cards. Of 123 discharged patients, 96 (78 per cent.) gained in weight, and 27 lost weight. The maximum gain in weight for one individual was 33½ lb. The following table shows the total and the average number of days' residence at Kalyra of all patients discharged during the year:—

	No. of Patients.	Total No. of Days.	Average No. of Days.
Class I ..	29	2,426	83·9
Class II ..	34	2,822	83
Class III ..	35	2,475	70·7

Age.—The average age of the 147 patients that came under treatment was 28 years; the youngest patient was 14 and the oldest 67 years of age. **Previous occupation.**—It is sometimes said that consumption is a "dwelling disease." On inquiring into the occupation followed by the patients who have been here this year it was found that 110 had been employed indoors and 37 out of doors. **Family history.**—In every case careful inquiry was made as to the state of health of other members of the family. In many cases patients are unable or unwilling to say whether any of their relatives have suffered from consumption. Therefore, the true proportion of cases in which consumption occurred in other members of the family is probably greater than is given here. The number of cases with a family history of consumption was 58; number of cases where a family history of consumption was denied, 79; no definite answer obtained, 10. In 39 per cent. of the cases treated there was a clear history that one or more members of the family had suffered from or died of consumption. The maximum number of cases of consumption that occurred in one family was 7. The following table shows the influence of family history on the result of sanatorium treatment:—

No. of Cases of Consumption in patient's family during three generations.	Total No. cases admitted.	Left arrested.	Left improved.	Left unimproved.	Died.
0	54	13	17	21	3
1	15	4	4	6	1
2	8	2	3	3	0
3	6	3	3	0	0
4	4	1	1	2	0
5	0	0	0	0	0
6	1	0	0	1	0
7	1	0	1	0	0

Mode of infection.—At the present time consumptive patients walk freely among us and spread infection in

many places, and the chances of infection are very numerous, and it is usually impossible to say how or where a patient has contracted the disease. It is not easy to give a correct account of the manner in which the disease first manifested itself, because the patients' statements from which this information is derived are often inaccurate. In the majority of the cases the disease began insidiously with a cough or a cold. The next initial symptom most commonly met with was pleurisy, but a far larger number of cases suffered from pleurisy after the disease had otherwise manifested itself. Indeed, so many patients have at one time suffered from pleurisy that I am of opinion that every person suffering from pleurisy should be suspected of tuberculosis unless some other definite cause is discovered. Many observers state that tubercular disease of the larynx is never a primary disease, but always follows disease in the lungs. In one case admitted the disease first manifested itself in a papilloma of the larynx, and several months later there were but slight signs of tuberculosis at one apex of the lung. It would, therefore, be unsafe to pronounce a papilloma of the larynx non-tubercular merely because there was no evidence of tubercular disease elsewhere. Where the disease had begun with influenza or with pleurisy the patients, as a rule, did not improve as much as those in whom the disease first manifested itself in some other way. Thus, of 10 cases in whom the first symptom was pleurisy, 5 left here unimproved; and of eight cases in whom the first symptom was an attack of influenza, 5 left unimproved. It would not be safe, however, to draw definite conclusions from these few observations.

Alteration in the size of the pupil.—It has been asserted that an alteration in the size of the pupil can often be observed in cases of unilateral affection of the lung. In the great majority of our cases the pupils were equal, but in 14 cases the left pupil was larger than the right, and in 11 (78 per cent.) of these cases the disease was on the side of the larger pupil. In 6 cases the right pupil was larger than the left, and in 4 of these the disease was on the side of the larger pupil.

Complications.—The commonest of all complications was hæmoptysis. This was noted to have occurred 77 times during the year. The intestines were affected in 17 (11·2 per cent.) cases. Pleurisy (plastic) was treated 11 times during the year. There was one case of pneumothorax, followed by pleural effusion. The patient is still living, and is fairly well (four months after tapping). Glandular enlargement, usually in the neck, occurred in 10 (6·8 per cent.) cases. Tubercular ulcers on the limbs were present in 3 cases, fistula in ano occurred in 2 cases, heart murmurs were heard in 2 cases, asthma occurred in 1 case, chronic rheumatism and arthritis in 1 case. The incidence and nature of throat affection is discussed below by Drs. T. K. and C. W. Hamilton, who very kindly undertook the treatment of affections of the ear, nose, and throat, and have rendered valuable assistance during the year.

Report on Complications involving the Ear, Nose and Throat (by T. K. Hamilton, M.D., and C. W. Hamilton, M.D.).—During the past year 39 (26·5 per cent.) of the patients have suffered from some throat complication, confined, for the most part, to the larynx; and there have been two cases of ear disease. In only 7 (4·7 per cent.) of the throat cases has there been well-marked tubercular infiltration with ulceration; in 17 (11·5 per cent.), thickening, with more or less general hyperæmia, and in the remainder hyperæmia alone. The epiglottis was involved in four of the ulcerated cases, in which dysphagia was, as is usual, the prominent and

most distressing symptom. The "points of selection" for infiltration in the earlier stages were almost always the laryngopharyngeal space and the posterior thirds of the vocal cords, which regions, being the richest of the intralaryngeal structures in glands, are the most vulnerable, and finally the last places to be attacked were the ventricular bands and the anterior two-thirds of the cords. In the hyperæmic group, the conditions in many of the cases represented that described as "the pre-tubercular catarrh," in which, in addition to the congestion, there was usually feeble adducting power of the cords and some pallor of the soft palate. This last is the class of cases, especially those in which there is not much accompanying disease of the lung, in which the ordinary sanatorium treatment can be often relied upon to cure without any, or the mildest of Obasiv, Royal medication. In only one case did the larynx become affected during the time the patient was under treatment. This occurred three months after the individual came to Kalyra, and he seemed not to generally worse from that time on. Treatment was successful in the arrest of the ulceration, and in causing the ulcers to heal, in only two cases out of the seven severe cases, which, after all, is a very satisfactory average. The other four were discharged unimproved, and one of these has since died. A review of our past year's record of tubercular invasion of the throat, taken along with our experience of these cases in previous years, affords us some material for studying the question of the influence of sanatorium treatment, *per se*, upon throat complications; but we have, as yet, by no means sufficient material at our disposal to arrive at anything like definite conclusions upon this interesting point. Since the establishment of sanatoria throughout the world has become so universal, this question has been everywhere engaging the attention of laryngologists. Already tolerably reliable information has been obtained in some of the European institutions on this subject, and is now being made available in reports recently published. We hope that, when we have had the opportunity of watching a larger number of cases at Kalyra, we shall then be in a position to express our opinions in a similar way. The two ear cases were presumably of tubercular origin, both *purulent otitis media*, and accompanied in one case with exfoliation of one of the ossicula.

AUSTRALIAN UNIVERSITIES.

Sydney.—The following are the results of the recent examinations for Degrees of M.B., Ch.M.:—Honours at graduation.—Class II: H. R. G. Poate, J. E. F. Deakin, J. L. Shellshear, O. A. A. Diethelm. Subjects of the Fifth Year Examination.—Passed with distinction: H. R. G. Poate. Passed with credit: J. E. F. Deakin, A. MacInnes, B.A., H. H. Selink, J. G. Edwards, F. O. Stokes (equal), G. A. Paul, J. L. Shellshear. Pass (alphabetical): W. J. Binns, M.A., C. H. B. Bradley, A. C. Cahill, F. B. Craig, O. A. A. Diethelm, A. P. Gillespie, K. Hammand, A. J. Mackenzie, R. A. Parker, H. E. Fridham, A. B. Steele, W. Vickers, H. B. Smith Walker, O. E. B. Withers.

Melbourne.—The ceremony of conferring degrees took place at the University on December 29th. Bachelor of Medicine.—Muriel Kate Davies, Ethel Good, Mary Anketell Henderson, Margaret

Jamieson, Alice Mary McLean, Laura Weir, Hubert Blaibaum, Hugh Berchams Devine, John Webster Dunhill, Geo. Wm. Foster, Hubert Baldwin Gill, Jos. Jas. Lloyd Gill, Thos. Stawell Hntchings, Chas. Inglis McLaren, Robert Galloway McLay, Douglas Murray McWhae, Jas. Archelaus Opie, John Ignatius Parer, Gordon Andrew Paton, Geo. Leslie Perry, Montifore David Silverberg, Jas. Francis Spring, Royle Newton Wawn, Andrew Stewart Young. Bachelor of Surgery.—Geo. Williams Foster, Hubert Baldwin Gill, Douglas Murray McWhae, Jas. Francis Spring. (In absentia), Albert Antliff Weir. Doctor of Medicine.—Luther Morris. (In absentia), Albert Wallace Weißen.

Adelaide.—At a meeting of the Council, held on December 17th, on the recommendation of the Faculty of Science, it was resolved to admit Mr. W. H. Ledger *ad eundem gradum* to the Degree of Bachelor of Science. The reports of the various faculties and committees on the election of Deans and Chairman for 1907 were approved:—Faculty of Arts—Dean, Professor Michell. Faculty of Science—Dean, Professor Bragg. Faculty of Law—Dean, Professor Brown. Faculty of Music—Dean, Professor Ennis. Faculty of Medicine—Dean, Dr. Symons. Board of Commercial Studies—Chairman, Mr. J. R. Fowler; Vice-Chairman, Mr. S. J. Jacobs. Board of Musical Studies—Chairman, Professor Ennis. An application from Dr. A. Sanderson for admission *ad eundem gradum* was approved. The council re-elected the various faculties, committees and boards for 1907.

MEDICAL NOTES.

Charitable Donations and Bequests.—The committee of the Queen Victoria Homes for Consumptives have received a cheque for £25 from his Excellency the Governor-General as a Christmas donation to the Queen Victoria Sanatorium for Women at Thirlmere, and also a cheque for £25 as a Christmas donation to the Queen Victoria Sanatorium for Men at King's Tableland.

His Excellency the Governor of Victoria (Sir Reginald Talbot) recently visited the Sunbury Asylum for the Insane, to inspect the institution. The Inspector-General of Insane (Dr. Ernest Jones) was present to show him over the asylum.

Suppression of Opium Smoking.—Inspector Cawsey recently stated that the Opium Suppression Bill had almost completely annihilated the vice in Melbourne. Reports received by the Chief Secretary (Mr. Langdon) show that the same desirable end has been attained in the country centres. The various police officers who have sent in their reports state that the multitude of obstacles to opium smoking raised by the measure has resulted in the practice having diminished until the evidences of its existence are scarcely apparent.

Brisbane Hospital Street Collections.—The hospital street collections which were conducted in Brisbane on Saturday, December 22nd and 29th, totalled £447 18s 5d, an increase of £36 upon last year.

State Aid to Victoria Hospitals.—For some years past the State has not been giving any money in aid of works of repair at hospitals, but the Victorian Cabinet has decided that the present financial position

justifies something being done in that direction. It was therefore determined to authorise the Treasurer to give 1s to every 5s collected for the improvement of hospital buildings, with a condition that no hospital shall receive more than £500. These funds for improvements and repairs which are to be subsidised must be altogether apart from existing collections, such as Hospital Saturday and Sunday.

The authorities of Edinburgh Royal Infirmary have chosen as their new assistant superintendent of nurses Miss Jane Bell, who was trained at the Royal Prince Alfred Hospital, Sydney, New South Wales, and was afterwards sister, night superintendent, and housekeeper in the same institution. She has also been matron of Bundaberg Hospital, Queensland, and matron and superintendent of nurses at Brisbane Hospital, Queensland. The last post she held until July 31st, 1906. Her appointment will give pleasure to nurses in the colonies where she has worked, as also to the heads of the school in which she was trained.

Hygienic Milking.—The dairying experts attached to the Victorian Department of Agriculture have during the last week been investigating a hygienic milk-can and stool invented by Mr. W. C. Quinnell, M.R.C.V.S., of Wellington. This is a device possessing many advantages over the ordinary milk bucket. Dust, hairs, and other foreign matters are prevented from falling into the bucket during the process of milking, while the practice of dipping the fingers into the milk to wet them is rendered impossible. These are the two chief sources of milk contamination, and the invention by preventing them should result in a cleaner, purer and more wholesome milk supply. The invention has been approved by the departmental experts.

A new departure has been made by the Melbourne Women's Hospital, which has now decided to undertake, in certain cases, the nursing of women who have not been admitted to the institution. The committee of the hospital has arranged that care shall be given to indigent women during confinement in their own homes within a certain area. Intending patients must register their names at the hospital three months before the expected date of requiring treatment.

The Baron von Mueller Medal.—The Council of the Australasian Association for the Advancement of Science at Adelaide decided to adopt the recommendations of the Baron von Mueller Memorial Committee, and award the Mueller Medal to Professor J. P. Hill (Professor of Biology at University College, London). The medal, which is of bronze, is awarded by the association not more frequently than every second year to the author of the most important contribution or series of contributions to natural knowledge published originally within His Majesty's dominions within a period of not more than five nor less than one year of the date of the award, preference being always given to work having special reference to Australasia. For 14 years Professor Hill was a member of the staff of the University of Sydney, holding the position of demonstrator in biology and, later on, lecturer in embryology as well. Professor Hill has won high scientific honours from many societies, and has repeatedly received grants from the Royal Society of London and Fellowships from the University of Edinburgh for the prosecution of his scientific research. His discoveries in the realm of embryology of the marsupials rank with the foremost biological discoveries of the last 20 years.

PERSONAL ITEMS.

Dr. T. Storie Dixon has removed from Elizabeth-street, Sydney, and now may be consulted at 151 Macquarie-street, Sydney.

Dr. Nall has returned from Europe and resumed practice at "Rahere," Clayfield, Brisbane.

Dr. Penny has removed to "Kilcreggan," Norman Parade, Eagle Junction, Brisbane.

We regret to learn that Dr. O. C. Cocks, of Wentworth, N.S.W., has been obliged to relinquish his practice owing to ill-health.

Dr. James McLean, practising in Otago, N.Z., has been killed by a vehicle accident. Deceased formerly held appointments in West Australia.

A meeting was recently held at the Stawell (Vic.) Town Hall, convened by the Mayor, to arrange for a presentation to Dr. Naphthine, who is leaving Stawell. There was a very large attendance, and over £80 was donated in the room.

The degree of M.D. was conferred by the Melbourne University on December 29th on Miss Constantine Trent Champion De Crespigny.

At a meeting of the Nagambie (Vic.) Licensing Court held on December 27th, Dr. R. G. Reid, J.P., was elected chairman of the bench for the ensuing year.

Dr. Ludwik Bernstein, of Lismore, N.S.W., has just celebrated the 28th anniversary of his arrival in Lismore, where he came from Tenterfield in December, 1878. Prior to that he had been practising for some years in Northern Queensland, and afterwards at Stanthorpe. He was mayor for years, an alderman for 25 years, returning officer, district coroner, and Government medical officer.

Dr. Purves, of Angaston, South Australia, is practising a few miles out of London.

Dr. Barrett Hine, formerly of Nairne, South Australia, has purchased a share in a practice in the village of Charmouth, in Dorset, near to the old town of Lyme Regis, England.

At a recent meeting of the St. John Ambulance Nursing Corps, Dunedin, N.Z., Dr. E. H. Williams (hon. surgeon) was presented with a carriage clock as a mark of esteem in which he is held by the members.

Dr. D. H. Young, who recently resigned the position of president of the Milton Men's Social Institute, Dunedin, consequent on his having entered into practice at Invercargill, New Zealand, was presented with a dressing-bag as a souvenir of the members' appreciation of his services.

Dr. G. Irmer, the German consul-general at Genoa (Italy), has been appointed (states a cable message from London to the "Age") to succeed Herr Paul von Buri as consul-general for the Australian Commonwealth. The headquarters of the new consul-general will be in Sydney.

In connection with Dr. Danysz's experiments with a view to the extermination of the rabbit, now being conducted at Broughton Island, off the New South Wales coast, Dr. Angus Johnson and Mr. W. J. Giddings, the two Commissioners appointed by the South Australian Government to represent them at the experiments, have again visited Sydney and the island.

Dr. Button, of Junee, N.S.W., has been presented with a valuable dressing bag by the ladies connected with the M.U. Lodge of Oddfellows, as a token of esteem.

Dr. J. J. S. McEvoy, who has acted as medical officer to the Beenleigh Lodge, U.A.O.D., Queensland, since its inception some six years ago, was entertained by the lodge officers at Plumb's Hotel on January 2nd, and presented with a handsome silver liqueur stand in appreciation of his attention to the members.

Dr. J. A. Langdon is about to leave Elliston, S.A., for the purpose of practising at Broken Hill. His successor on the west coast will be Dr. Burnard, the present pathologist at the Adelaide Hospital.

Dr. Balcombe Quick has tendered his resignation as senior resident medical officer of the Alfred Hospital, Melbourne.

Dr. Howse, V.C., who is proceeding on a visit to England, was entertained by his friends of Orange (N.S.W.) and the district on January 7th.

Dr. A. L. Kenny, of Melbourne, has been appointed a member of the Papal Noble Guard.

Dr. Gwynne-Hughes has removed to Clarendon House, 287 Elizabeth-street, Hyde Park, Sydney.

Dr. F. H. B. Gaden was presented on January 9th with an address and gold watch, on the eve of his departure from Grenfell, N.S.W.

Dr. J. F. McEwen, formerly of New South Wales, has been appointed a member of the dental examination board for the island of Jamaica.

A complimentary smoke night was recently tendered to Dr. A. W. Rinder, who has disposed of his practice at Tarnagulla, Victoria, and is leaving the district for Wedderburn (Vic.).

Dr. Arthur, M.L.A., of New South Wales, the president of the Immigration League of Australia, has left Sydney for a tour in Victoria and Tasmania in the interests of immigration. He has arranged to address meetings in the principal towns in Tasmania.

Mr. Matthew Lang, M.B., Ch.B., has commenced practice at 85 Collins-street, Melbourne.

Dr. B. Milne Sutherland has returned from England, and has commenced practice at his late father's residence, Maribyrnong-road, Moonee Ponds, Victoria.

Dr. R. Stawell, of Melbourne, is leaving next month in the P. and O. steamer Mongolia for a six months' trip to Europe.

Dr. Constance Binney has resigned the position of surgeon to the friendly societies at Longreach, Q.

MILITARY INTELLIGENCE.

Carbery, Andrew Robert Dillon, to be Surgeon-Captain, New Zealand Volunteer Medical Corps.
McGavin, Donald Johnstone, to be Surgeon-Major, New Zealand Volunteer Medical Corps.
Pigeon, Hugh Walter, to be Surgeon-Captain, New Zealand Volunteer Medical Corps.

MEDICAL APPOINTMENTS.

VICTORIA.

Alsop, Herbert Fabian, L.R.C.S., to be a Public Vaccinator for the South Western District, vice Abraham Haynes, F.R.C.S., resigned.
Lind, William A. T. to be a Public Vaccinator for the South-Eastern District, vice James Duncan, M.B., deceased.
Perr, Dr., has resumed practice at Smythesdale, and has been appointed Medical Officer to the Hope of Berrings Lodge, I.O.O.F.

Skinner, George Henry, M.R.C.S., to be Public Vaccinator to the South Western District.

The undermentioned to be Medical Officers of Health for the district set opposite their names, viz. :—

Alsop, Herbert Fabian, L.R.C.P., Shire of Winchelsea, *vice* Abraham Haynes, L.R.C.P., resigned.
Greer, Claude, M.B., Shire of Wycheproof, Tyrrel Riding, *vice* Edmund Henry Lindsay, L.R.C.P., resigned.
Horne, Herbert Roger, L.R.C.P., to be Acting Officer of Health for the Shire of Traralgon, *vice* Thomas Cochrane Anderson, M.B., resigned.
Morris, Luther, M.B., Shire of Birchip, *vice* Leslie Davies, M.B., resigned.
Simons, Charles Nathaniel, L.R.C.P., Shire of Bright, *vice* Arthur Norris Wilkinson, L.R.C.P., resigned.
Simpson, Donald, M.B., Shire of Ferntree Gully, *vice* Robert Lee Brown, L.R.C.P., resigned.

SOUTH AUSTRALIA.

Chancellor, Charles Hurst, M.B., to be Medical Officer of the Gladstone Gaol, *vice* Wells, resigned.
Chapple, F., to be Officer of Health for the district of Nairne.
Dawson, Dean, to be Officer of Health for the town of Laura.
Smeaton, Bronte, to be Medical Officer of Health for the District of Mount Barker.
Strangman, Charles Lucius, L.R.C.P. and S. (Edin.), to be Health Officer, Port Darwin, and District Registrar of Births, Deaths and Marriages for the District of Palmerston, *vice* Fulton, resigned.

WESTERN AUSTRALIA.

Keenan, Alfred James William, to be District Medical Officer and Public Vaccinator at Black Range.
Macmorran, A. H. M., to be Officer of Health at Geraldton, *vice* Dr. Thom.
Stewart, J. E. Ferguson, to be Acting District Medical Officer and Public Vaccinator, Guildford, during the absence on leave of J. M. Y. Stewart.

NEW ZEALAND.

The undermentioned persons to be Public Vaccinators for the districts set opposite their names respectively, namely :

Crawshaw, John William, M.B., B.Ch. (Vic.), *vice* W. F. Paterson, resigned.
Cousens, Albert Ebenezer, M.R.C.S. (Eng.), L.R.C.P. (Lond.), District of Wellington.
Paterson, William Fergus, M.B., Ch.B., L.R.C.P., M.R.C.S., Geraldine.
Jeffreys, Harold, to be Medical Officer at Porirua Mental Hospital, Wellington.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as Legally Qualified Medical Practitioners in their respective States :—

NEW SOUTH WALES.

Houlihan, James, M.B., B.S., 1905 (Irel.).
Low, William Houston, L.R.C.S. (Edin.), 1883.
Kirkwood, William Love, M.B., B.S., 1905 (Glas.).
Webster, Leonard Clarke, L.R.C.P. (Edin.), 1906; L.R.C.S. (Edin.), 1906; L.F.P.S. (Glas.), 1906.

For additional registration :—

Neumann, Eugen, M.D. (Munich), 1893.

VICTORIA.

Nisbitt, Mortimer Durnford, M.B. et Ch.B. (Melb.), 1906.

Additional qualification registered :—

Dunhill, Thomas Peel, M.D. (Melb.), 1906.

TASMANIA.

King, William Henry Tindal, L.S.A. (Lond.), 1879, M.R.C.S. (Eng.), 1881.
Miller, Lindsay Stevens, M.B. (Melb.), 1901, Ch.B. (Melb.), 1901.
Stephenson, Joseph Briscoe, M.D. (Durham), 1902, B.S. (Durham), 1903, D.P.H., R.C.P.S. (Irel.), 1903.
Wettenhall, Roland Ravenscroft, M.B. (Melb.), 1906.

SOUTH AUSTRALIA.

Griffiths, Ernest William, M.B., B.S. (Adel.), 1906.
Harris, James Frederick, M.B., Ch.B. (Melb.), 1901; M.D. (Melb.), 1906.
Lewis, Eric Henry, M.B., B.S. (Adel.), 1906.
McAree, Francis Edward, M.B., B.S. (Adel.), 1906.
Ray, William, M.B., B.S. (Adel.), 1906.

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

CLOUSTON.—December 4th, at North Sydney, the wife of Thomas Bennett Clouston, M.B.—a son.
DAWSON.—At Berry, N.S.W., December 23, 1906, the wife of Dr. C. Dawson—a daughter.
DOAK.—December 10th, at Mosman, Sydney, the wife of Frank W. Doak—a daughter.
FAIRFAX.—December 29, at 5 Lyons-terrace, Hyde Park, Sydney, the wife of Dr. E. W. Fairfax—a son.
McEVOY.—December 7th, at Mrs. Green's Private Nursing Home, "St. Albans," Manning-street, South Brisbane, the wife of Dr. J. J. S. McEvoy, Beenleigh—a daughter.
VERCO.—January 2nd, at Normanhurst, Tynte-street, North Adelaide, S.A., the wife of Dr. C. A. Vercos—a daughter.

MARRIAGES.

COVERNTON—POOLE.—On the 12th December, 1906, at St. Peter's Cathedral, Adelaide, by the Rev. F. Slaney Poole, M.A., Hugh Selby Covernton, M.R.C.S. (Eng.), L.R.C.P. (Lond.), of Gawler, S.A., to Beatrice Alice, third daughter of the Rev. Frederick Slaney Poole, M.A., of Adelaide.
McBREARTY—RYAN.—December 1st, at Ashfield, Sydney, by the Rev. John Ferguson, M.A., James Wilson, F.R.C.S., eldest son of Dr. McBrearty, Grey-mouth, N.Z., to Josephine (Joel), second daughter of Dr. M. J. Ryan, Yerranderrie, N.S.W.

DEATHS.

LEVY.—December 30th, suddenly of apoplexy, Edward Bernard Levy, L.R.C.P.S., son of Elizabeth and the late Lewis Levy, 402 Albert-street, East Melbourne, aged 40 years. By cable.
VIOLETTE.—January 14, at Hanley, Staffs, England, Annie, the beloved wife of W. Bradley Violette, M.B., surgeon, Parramatta. By cable.
YOUNGER.—December 23rd, at Sydney, Dr. Alexander James Younger, for many years a resident of San Francisco, California, U.S.A., aged 64 years; late surgeon of the s.s. "Sierra."

BOOKS RECEIVED.

Wellcome Research Laboratories Second Report at the Gordon Memorial College, Khartoum. Andrew Balfour, M.D., B.Sc., F.R.C.P. (Edin.), Director.
The Röntgen Rays in the Diagnosis of Diseases of the Chest. By Hugh Walsham, M.D. (Cantab.), and G. Harrison Orton, M.D. (Cantab.), with 18 plates and 22 illustrations in the text. Pages, 80+8; 8vo. London: H. K. Lewis. Price, 6s net.
The Sigmoidoscope: A Clinical Handbook on the Examination of the Rectum and Pelvic Colon. By P. Lockhart Mummery, B.C. (Cantab.), F.R.C.S. (Eng.). Number of pages, x+88; 19 illustrations; crown 8vo. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 3s 6d net.
Medical Diagnosis: A Manual of Clinical Methods for Practitioners and Students. By J. J. Graham Brown, M.D., F.R.C.P., F.R.S.E., and W. T. Ritchie, M.D., F.R.C.P., F.R.S.E. Fifth edition. Pages, xvi+508; 200 illustrations and 8 full page plates. Edinburgh and London: Wm. Green & Sons. Price, 8s net.
Green's Encyclopedia and Dictionary of Medicine and Surgery. Vol. II.—Bread to Eat. Edinburgh (2 and 4 St. Giles street) and London: Wm. Green & Sons.
The seven following books have been received from Messrs. Baillière, Tindall & Cox, 8 Henrietta-street, London. Sydney: L. Bruck :—
1. On Retro-Peritoneal Hernia, "Arris & Gale" Lectures. By B. G. A. Moynihan, M.S., F.R.C.S. Second edition, revised by the author and J. F. Dobson, M.S., F.R.C.S. Pages, vi+195, with 40 illustrations and 12 plates; demy 8vo. Price, 7s 6d net.
2. Clinical Lectures on Enlargement of the Prostate. By P. J. Freyer, M.D., M.Ch. Third edition. Pages 154; illustrations 54; demy 8vo. Price, 6s net.
3. Lectures on Diseases of the Lungs. By Jas. Alexander Lindsay, M.D., F.R.C.P. Second edition. Pages, x+508; demy 8vo. Price, 10s 6d net.

4. Minor Maladies and their Treatment. By Leonard Williams, M.D. Pages, x+383; crown 8vo. Price, 5s net.
5. Syphilology and Venereal Diseases. By C. F. Marshall, M.D., M.Sc., F.R.C.S. Pages, x+509, with 5 plates; demy 8vo. Price, 10s 6d net.
6. The Uses of X-rays in General Practice. By R. Higham Cooper, L.S.A. Pages, x+98; 5 plates; crown 8vo. Price, 2s 6d net.
7. High Frequency Currents: Their Production, Physical Properties, Physiological Effects, and Therapeutic Uses. By H. Evelyn Crook, M.D., B.S. (Lond.), F.R.C.S. (Eng.). Pages x+206; 44 illustrations; demy 8vo. Price, 7s 6d net.
- The Chloroform Problem. By Richd. Gill, B.Sc., M.B., B.S. (Lond.), F.R.C.S. (Eng.). Demy 8vo. Two volumes. Price, 10s net. Edinburgh and London: William Blackwood and Sons, 1906.
- A Few Hints on the Care of Children at Sea. By Samuel Synge, M.D., M.A.O.B.Ch. London: J. Bale, Sons & Danielsson, Ltd., Great Titchfield-street. Price, 1s.
- Hypnotism or Suggestion and Psychotherapy. By Dr. (Med.) August Forel. Translated from the German. By H. W. Arnitt, M.R.C.S., L.R.C.P. Pages, x+370. London: Rebmam Ltd., 129 Shaftesbury Avenue, W.C. Price, 7s 6d net.
- The Journal of the University of Sydney Medical Society.
- Trypanosomiasis. By E. Angus Johnson, M.D., etc., Adelaide.
- A Guide to Urine Testing, for Nurses and others. By Mark Robinson, L.R.C.P., L.R.C.S. (Edin.). Third edition, revised. Bristol: J. Wright & Co. Price, 1s net.

The following 13 books have been received from Messrs W. B. Saunders & Co., of Philadelphia and London, whose Australian agent is Mr. Jas. Little, of Bourke-street, Melbourne.

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- The Bacteriological Examination of Water Supplies. By Wm. G. Savage, B.Sc., M.D., D.P.H. Pages xvi.+297. Size p. 8vo. Price, 6s 6d net. London, 136 Gower-street: H. K. Lewis.
- Manual of Surgery. By Alexis Thompson, F.R.C.S. (Edin.), and Alexander Miles, F.R.C.S. (Edin.). Vol. I., General Surgery. Second edition. Revised and enlarged. Edinburgh and London: Young J. Pentland. Sydney: Angus and Robertson. 1906. Price, 12s.

Common Complaints and Simple Remedies, with Plain Instructions for the Use of the Universal Household Medicine Cabinet. By Samuel T. Knaggs, M.D., Ch.M., etc. (Syd.). Studies in the Bacteriology and Etiology of Oriental Plague. By E. Klein, M.D., F.R.S. Pages, xii+301, with 89 photographs. London: Macmillan & Co., Ltd. Price, 12s net.

A System of Medicine, by many writers. Edited by Thos. Clifford Allbutt, M.D., F.R.C.P., etc., and H. D. Rolleston, M.D., F.R.C.P. Vol. II, part I. Number of pages, xii+1087. Price, 25s net. London: Macmillan & Co., Ltd.

Retinoscopy (or Shadow Test) in the determination of Refraction at one meter distance, with the plane mirror, by James Harrington, M.D. Fifth edition, revised and enlarged; 63 pages; price 4s 6d net. Philadelphia, P. Blakeston's Son & Co., 1807.

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It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

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AUSTRALASIAN MEDICAL GAZETTE

No. 305.

SYDNEY, FEBRUARY 20TH, 1907.

VOL. XXVI., No. 2.

PRESIDENTIAL ADDRESS.

Delivered before the Medical Society of Victoria.

By M. U. O'Sullivan, F.R.C.S.I., L. et L. Mid.,
R.C.P. et R.C.S. (Edin.), et L.M. (Dub.), Melbourne,
Retiring President.

I DESIRE to ask the attention of the Society this evening while I endeavour to present a few subjects of perennial interest to the profession—subjects which tend, perhaps, more than any others that I know of, to the debasement and moral ruin of civilised life, as well as to the decadence of national power and strength.

There is no gainsaying the fact that the greatest evils of modern civilisation are the specific infection of wives by their husbands, criminal abortion, and the prevention of conception.

So long as society condones in man such lapses as it relentlessly and pitilessly condemns in woman; so long as a chaste and virtuous woman is willing to sacrifice herself to an unchaste husband; so long will specific infection, in all its harrowing forms, abound.

Have we not all seen instances where husbands unwittingly infect their wives on the honeymoon journey with a gonorrhœa caught long before, and of which they honestly considered themselves cured?

Here we have a veritable matrimonial scourge. From this cause alone comes, as every gynæcologist knows, the endless train of pelvic ills that afflict a large proportion of our womanhood—sterility, miscarriage, chronic invalidism, and even death. Grandin, writing in the *Medical News* of July 9th, 1904, says the chief cause of race suicide is the gonococcus, that 45 per cent. of sterile marriages are traceable to gonorrhœa. The evil should be exterminated by preventive medicine—that is, by the education of men and women in the evils entailed by venereal disease. In the human body the gonococcus may lie dormant for years, and then produce virulent infection; the urethra and uterus offer the most fertile soil for the con-

tinued life and development of these micro-organisms; the uterus once invaded, the tubes rarely escape.

But it is not female sterility only which is traceable to the gonococcus. Baldy and Dorland, writing in the *American Year Book of Medicine and Surgery* for 1904, say: "It was formerly the rule to ascribe the larger percentage of sterile marriages to anti-flexions of the uterus, with accompanying cervical stenosis, to some obscure change resulting from the higher education of women, to syphilitic endometritis, and to some sexual incompatibility between the man and the woman. There is not a shadow of doubt that all these, and other factors not mentioned, have a share in the production of sterility in some of its forms. It is now very generally recognised, however, that, while *cherchez la femme* is an excellent adage for one's guidance in many lines of life, it should not overshadow exploration elsewhere on the question of sterility. The extreme importance of gonorrhœa in the male in the production of sterility is universally admitted. A very perceptible percentage of unfruitful marriages, which are unjustly attributed to some defect on the part of the woman, results from a double epididymitis, with hermetic closure of the tubes, or from an obscure affection of the spermatic tubules resulting in the discharge of the deformed or effete spermatozoa. In addition to this male sterility, the result of the gonococcus, the same germ, when introduced into the genital tract of the female, produces such radical changes in the mucous membranes, that sterility on the part of the woman is produced. The alkaline leucorrhœa that results, is inimical to the vitality of the spermatozooids, even though they be healthy. Again, if the Fallopian tubes be involved in the process, the cilia are quickly shed, and, being absent, fail to facilitate the descent of the ovum into the uterine fundus. The activity of the pathogenic process also produces such a tumefaction of the tubal walls that the lumen of the tubes is obliterated, and hermetic closure follows from adhesive inflammation. Gonorrhœa must therefore be

regarded as a very prolific cause of sterility in the woman and in the man."

It has been estimated that 90 per cent. of sufferers from double epididymitis are subsequently sterile. Nor is the result of venereal disease confined to pelvic maladies or to the production of sterility in male and female, though so able an authority as Grandin attributes 60 per cent. of his gynæcologic operative work to the activities of the gonococcus. The association of syphilis with general paralysis and locomotor ataxia is a commonplace; the intractable gonorrhœal arthritis, and the unceasing discomfort and pain of urethral stricture supply, by their prevalence, their own commentary on venereal disease in our community.

In addition, authorities estimate that a large proportion of cases of total blindness—some say 50 per cent., others 30 per cent.—are due to gonorrhœal ophthalmia, and a certain proportion more to post-syphilitic atrophy. Some of this disease is doubtless due to the infection of the new-born infant from the maternal passages, and, furthermore—a thing which is not generally recognised—many of the atrophic and "infantile" uteri, as well as atresic and malformed vaginæ, may be traceable to natal inoculation with the gonococcus. That this could easily occur in breech presentations is obvious, and, in other cases, towels, etc., may convey the germs from parent to child.

The magnitude of this hydra-headed scourge may be guessed from the fact that reliable authorities estimate that about 75 per cent. of males have had gonorrhœa once at least, and fully 30 per cent. carry the latent germ to the nuptial couch.

Alex. Doctor, writing in a Berlin Medical Journal of the date December 2nd, 1905, gives it as his opinion that venereal diseases are the causes of more deaths than tubercle or cancer, although somewhat more indirectly, besides being the fruitful source of "those disabling gynæcologic conditions worse than death." He reminds us also of the well-known fact that extrauterine pregnancy frequently—nay, most frequently—arises from gonococcal inflammation; while even septicæmia in pregnancy may be thus occasioned. "Syphilis attacks 30 per cent. to 40 per cent. of the poorer classes. In England it is given as 80 per cent. Gonorrhœa is even more frequent. The intelligent patient undertakes efficient treatment of

syphilis, while he allows his gleet to go untreated, as unimportant."

The second of this triad of evils, criminal abortion, is, alas! another frequent cause of ill-health among us. Performed by ignorant and uneducated persons, without precautions—sometimes by women upon themselves—it slays or maims its thousands. Worse still, it is practised in defiance of all law and morals by the degenerate members of our own profession.

But, quite apart from the admittedly infamous practices of the medical abortionist, the question arises—"Are we ever justified in killing an unborn child?" In the whole range of medicine and surgery there is no more important question, and I desire to reply to it at once in the negative. Looking at the question from its legal, moral, and scientific aspects, I say we are not.

While respecting the convictions and feelings of those opposed to the views I express, I hold that the time has come when, in the light of modern advances in obstetrics, reputable surgeons of all shades of religious thought should no longer claim the right to perform an operation involving the mutilation or destruction of a living child *in utero* at any stage of gestation.

Common sense and philosophy tell us that all men are equal in their essential rights, and in the equality of those rights exists man's divine claim to life, and all the legitimate happiness it can be invested with. It is his natural, his inalienable right—a right no man can legally deprive him of.

The advocates of craniotomy and therapeutic abortion have ever been on the alert to widen the limitations of those principles, and to evade the natural law. It is much to be regretted that the doings of what may very aptly be termed the dark ages in obstetrics still find tenacious adherents, though happily a diminishing quantity, among the rank and file of the profession.

We have still to reckon with the "disciple of expediency," who tramples on all the higher considerations that light the physician's path of duty, and who is ever ready with all sorts of specious arguments in justification of his alleged right to end child-life under certain conditions. He plausibly tells us the life of the mother—the mistress of the household, and the mother of the family—has more value than that of the child unborn; that the child's death is inevitable in any

case; that it is "doomed," and therefore it has no intrinsic value; that the child *in utero* is an "unjust aggressor"; that in the first stages of pregnancy there is nothing but a "conglomeration of cells," which can have no subjective right to live; that the physician is bound to abide by the decision of the mother, or nearest representative, and is therefore not morally responsible for the killing, and so on.

It has been shown over and over that none of these counter-principles will ever bear careful examination. They could never be applied as general principles. They are but the arguments of the unscrupulous or vacillating physician, only too ready to subordinate duty to expediency.

Is the life of the mother more valuable than that of the unborn child? If we consider the question only from the sentimental standpoint, we may feel inclined to say yes; if there is only one of the two to be saved, let it be the mother.

But sentiment must have no place in shaping a physician's opinion on so grave an issue. His arguments in arriving at a decision must come from his head rather than his heart, and he who, for sentimental reasons, shrinks from the faithful discharge of his duty, is selfish in the last degree, and tramples on the best traditions of his profession.

The capable, conscientious obstetrician carefully weighs in the balance the indications and contra-indications in each individual case, influenced alone by moral and scientific considerations in all he says and does. He is ever ready to sacrifice his time, his comfort, and his feelings in the interest of that human life which he is the trusted guardian, and to which all have an equal right.

The craniotomist and therapeutic abortionist argue that the mother's life has a social value which cannot be attached to that of the foetus—she is perhaps a leader of society. Professor Pinard said, in reply to this odious plea, in 1900: "To discuss, from an economical or social view-point, the difference in the value of the life of the mother and that of the child is simply monstrous." Sad, indeed, and sorrowful must be the thought of the woman who lives by the unhallowed sacrifice of her offspring to figure in society.

And when we reflect how many of the great men of this world have been delivered by Cæsarean section from parents whose doings and characters were alike obscure, how dare we dogmatically assert in any given case that "the life of the mother is the more valuable."

That the child is "doomed in any case," and that its life has therefore no value, seems the most specious argument by which the craniotomist or therapeutic abortionist seeks to justify his "slaughter of the innocents."

I rejoin that if he is not guilty of murder who sacrifices the living *fetus in utero* simply because he thinks he cannot deliver it with perfect safety to the mother, then I say the dangerous principle is at once set up that when a person has no chance of living, when a person is "doomed" from any cause, another may freely dispose of his right to live.

I wonder whether the advocates of this perilous principle ever think of its logical consequences. Let me ask them how they would deal with infectious cases on board ship, whose condition had been pronounced hopeless—"doomed"—by the ship's physician? Would they argue that the doctor or captain is justified in throwing them overboard while still alive in order to prevent danger to other passengers?

But, argues the advocate of killing, the taking of the life that is "doomed in any case," and in his estimate valueless, refers only to the child *in utero*, and then only when required to save the mother; and, further, that such right to take life is reserved to the physician.

I answer, your limitation is an arbitrary one. There is no material difference between the child *in utero* and the child just born.

I say that the cry of "doomed in any case" and "valueless," as applied to the living child *in utero*, that cannot be delivered *per vias naturales*, or to the living foetus which it is proposed to sacrifice for any reason, is but the apology of the bungling, incompetent obstetrician, or the thinly-veiled excuse of the disciple of expediency, who, for reasons best known to himself, forgets his obligations and yields to the hysterical wishes of friends and family.

I say that, with such life-saving procedures as Cæsarean section, symphysiotomy, and others, giving a mortality rate hardly greater than that of the simplest abdominal section,

and sanctioned by every canon of science and ethics, the self-respecting surgeon will shrink from imbruing his hands and his conscience in the blood of the innocent babe *in utero*, as he would from the foul crime of murder under any conditions.

The antiquated argument that the foetus is an "unjust aggressor" will not bear investigation. The innocent foetus is not placed *in utero* by any act of its own. It has done nothing wilful to constitute itself a menace to the mother's life. It is the victim rather than the cause of the obstacles to natural delivery, hence there can be no question of an unjust attack. On the contrary, if the question of relative rights be here raised, ethics and justice would seem to demand that the mother's life should yield to the child's.

In the famous "Mignonette" case, the Lord Chief Justice of England said: "If a man be desperately assaulted, and in peril of death, and cannot otherwise escape than by the killing of an innocent person then present, the act will not acquit him of the crime and punishment of murder, for he ought rather die himself than kill an innocent."

In this memorable case, Lord Coleridge described the conduct of the shipwrecked men as "inhuman." The plea of "unjust aggression" on the part of the murdered boy fell through, and the only defence left them was expediency. The Court refused to listen to any extenuation of their crime, and they were sentenced to death.

Similarly, the alleged right of one of two occupants of a plank at sea, which only could support one, to throw his companion off it, met with equally severe condemnation, and was promptly pronounced "unjustifiable homicide."

It is a sorry reflection on our boasted twentieth century civilisation that our English law still countenances craniotomy and medical abortion, on the iniquitous principle that a living child in the mother's womb is not a human being, just as the old Roman law regarded it as "*pars viscerum*," and held that the mother had the right to treat it as a neoplasm, and say what should be done with it.

While we, as biologists, know that the ovum is alive from the moment of conception, the unscientific error is still prevalent that life does not begin in the foetus till the time of "quickening," and all physicians can call to mind women who would think themselves insulted if their righteousness or morality

were questioned, who yet use every means in their power, not only to prevent conception, but also to terminate pregnancy once begun.

The therapeutic abortionist who justifies his procedure for pathological reasons, such as the "uncontrollable vomiting of pregnancy," makes a grave error. Here we have him advocating the killing of the foetus for the relief of a condition whose pathology and causation have, in the past, been but speculation and surmise. I will not admit for one moment that uncomplicated pregnancy, a physiologic process, has ever yet caused death by vomiting, and I am strongly of the opinion that a thorough examination of each individual case will bring to light some causative disorder, either of the blood, the digestive or excretory organs, or the nervous system, the judicious treatment of which may effect a complete cure, or at least, so far mitigate symptoms as to help the woman on to the "viability" of her child, or to full term of gestation.

Thus in many cases unrelieved by medical treatment, I have discovered and operated on "movable kidney," with immediate relief to every symptom, and a satisfactory progress, subsequently, to term.

I have not in my experience come across a single instance of uncontrollable vomiting where so extreme and empirical a remedy as the removal of the foetus could find a shred of justification.

True, in the treatment of pathological conditions, our remedies may possibly result in abortion; but the evil effect is then not intended, and it is not denied that we are sometimes justified in *risking* the life of a foetus to save that of the mother.

The mortality of Casarean section is now no greater than that of craniotomy. In a series of 162 cases of section by Zweifel, Reynolds, Charles, Cragin, Bar, and Olsshausen the maternal mortality was 3 per cent. Sinclair, of Manchester, reports 12 without a death.

In view of these results, I say that the physician who would perforate the head of a living foetus *in utero* places but a low estimate on human life, and should be asked to define his position.

Palmer Dudley, one of America's leading specialists, speaking at Amsterdam about six years ago, said: "As to craniotomy on the living child, I shall always reject it, believing that Casarean section, besides saving the child, is safer to the mother." Barnes, on the same occasion, characterised craniotomy

as "unworthy of modern obstetrics, except in the case of a dead child."

The plea that the patient may be in the country, beyond the reach of suitable assistance, and in undesirable surroundings for a Cæsarean section, cannot be admitted, for such would militate equally against all serious surgical proceedings which, nevertheless, are frequently imperative. Nor does Cæsarean section present many difficulties to a surgeon of average knowledge of abdominal work. Our literature teems with cases performed under the most diverse conditions, and by all grades of surgeons.

Hence I reiterate that, apart from errors and bungling on the part of the obstetrician, there can no longer be raised the semblance of a justification for the destruction of a living child *in utero*.

But perhaps the most common of our original three causes of ill-health in women is the prevention of conception. Nor does this occur only in the case of the unmarried, where (however reprehensible) it has the excuse of the avoidance of shame of motherhood and illegitimacy. It is even commoner among the married—most prevalent of all among the well-to-do married, where only far baser pleas can be urged in defence.

Heron, in a recent investigation (1906), finds that in England the great diminution in fertility in wives during the last 50 years has been almost entirely among the better classes living in the best sanitary surroundings—the very class capable of begetting the most desirable citizens. Incidentally, he rejects the explanation of delayed marriage in the upper classes as a solution of the problem. Mr. Sydney Webb, as quoted in the *Lancet* of November 10th last, expresses similar opinions. He eliminates bad sanitary conditions from the list of causes of decline in birth rate, points out that in the most thrifty classes the birth rate has fallen off 46 per cent. in the last decade, and states his absolute conviction that the decline which annually robs England of one-fifth of her "normal crop of babies" is "entirely the result of deliberate prevention on the part of the parents."

This detestable practice is the outcome of varying causes. It may come from fashion, cowardice, or shiftless poverty; it comes from the aimless dilettantism of women who will not mar their beauty, or disturb the patrician pleasures with the cares of maternity; it comes from too high a standard of living,

which creates many artificial wants and demands many expensive luxuries.

Why is it, I ask, that so many women under 45 are sick or sickly? Why do so many women break down during child-bearing life? The answer is plain. It is because numbers of them, false to their moral and physical obligations, are doing all they can to have no children or to limit their number. It is because the wife, forgetful of the duties she owes to her state of life, prevents conception, or seeks an illicit and dangerous deliverance from the consequences; or, again, it is because want of knowledge has made her the victim of venereal infection, that women suffer so much.

There is another aspect of this threefold evil to which, at first blush, it may seem out of place for me to allude, but my excuse is that health and happiness are so inseparably blended that what hurts the one injures the other.

It is much to be regretted that divorces and disrupted households are multiplying in this fair land to a degree which must excite the alarm of every patriot and philanthropist. Now, what is the real explanation of these unhappy homes? What means this domestic infelicity, those ill-mated marriages? I reply, they are the natural outcome of the violation of one of Nature's immutable laws. The causes are clear enough; sex cannot be ignored. It is a profound fact, which underlies all the relations of life and permeates the whole fabric of society.

The love interchanged between man and woman is no mere operation of the mind; no simple, intellectual, process. The conjugal relation is twofold in its nature; it has a moral as well as a physical expression, the two so interwoven that it is impossible to dissociate the one from the other without doing moral, as well as physical harm. The grossness of the physical or carnal union is redeemed by its purpose—the moral union, in which is incorporated the desire for offspring.

Strip the marriage tie of these qualities, take away the family idea, and it at once loses its cohesiveness as well as its dignity. For the bond constituted by children between man and wife should not be forgotten. Hopeless disruptions are less likely to occur in a home where the potential antagonists are at least united in a common love for their little ones, and regard for their welfare. Moreover, the care of her children is a woman's natural outlet for energy and affection.

But when a wife defiles the marriage-bed with the devices and equipment of the brothel and interferes with nature's mandate by cold-blooded preventives and safeguards; when she consults her almanac, and refuses to admit the approaches of her husband except at stated times; when a wife behaves in so unwifely and unnatural a manner, can it be otherwise than that estrangements and painful suspicions of faithfulness should from time to time occur? Can a home with such an environment be a happy one? Many husbands so situated are, I fear, tempted to seek elsewhere the pleasures denied them at home. Such are nature's reprisals; such, indeed, her unfailing retributions.

No doubt, more rarely, prevention takes place by the husband's desire; but, in the great majority of cases, it is by the wife's own will that she is thus childless, the husband's guilt in the diminishing fertility of our race being displayed rather in those involuntary cases of sterility due to his own disease, or to his infection of an innocent wife with the fruits of his premarital incontinence.

Ill-health and childlessness in our women are sources of national weakness which every lover of his country must deplore; year by year our birth-rate falls.

In our own State of Victoria the rates for the opening year of each decennial period since 1860 have an eloquent tale to tell.

In 1860	the birth rate	per 1000	was	42·81
„ 1880	„	„	„	30·75
„ 1890	„	„	„	33·60
„ 1895	„	„	„	28·48
„ 1900	„	„	„	25·79
„ 1905	„	„	„	24·83

For all Australia the birth-rate per 1000, which in 1891 was 34·23, is now (1905) 26·10. Australia's rate is lower than in any European country, save France and Ireland, and in the latter country the low marriage rate with its constant stream of emigration is a sufficient explanation.

Undoubtedly there are other factors besides the evils of which we have been speaking which must be taken into consideration—factors which may reasonably account for a fall in the general birth-rate per thousand. Such a factor is the altered composition of our population, the decrease in immigration, possibly a deterioration (from the fertility point of view at least) of our immigrants. But let us look at another table, to which the same objections cannot be taken, the birth-rate per thousand married women under 45

years of age. This rate, which for Victoria was 302·1 in 1891, is in 1901 only 227·9, and the other States show a similar decrease. Statistics on this table are not available after 1901; but judging by the subsequent further decline in the general birth-rate per thousand from 1901 to 1905, there can be little doubt that the fertility of our married women under 45 has undergone a still more lamentably marked diminution.

By the ill-health of our women, due to venereal infection, by their resorting to abortion, and by the use of preventive measures, the Australian family is growing smaller and smaller. In view of this indisputable fact, we might with advantage read a few lessons from ancient history and be warned by them.

Over five hundred years elapsed from the foundation of Rome before the first divorce was granted. In those days when nature's kindly laws give brains and bone and sinew to the nation, no power could withstand the onslaught of the Roman legions. But the time came when, as the degenerate Roman man evaded his duty of personally defending his country, so the decadent Roman woman declined her duty of bearing sons; when childlessness became common; when the family institution fell; when the Latin race underwent an alarming diminution; when divorces were obtained on the flimsiest grounds; when the Roman ladies termed the unborn child the *indecent onus*, and got rid of it, "*ne rugis ventrem Lucina notaret*."

But national sins beget national woes, and the Roman Empire perished for lack of men.

The early Greek prided himself on the number of his sons who could fight for his country. In the days of Thermopylae, Greece won the admiration of the world for her heroism and dauntless courage. Her navies swept the Mediterranean, her colonies occupied its coast, her free men owned no master, her sovereign commonwealth no tyrant. Yet 'twas but a brief period—as periods go in world-history—ere her serried ranks quailed before the Roman soldiers and the Greek became a slave.

What is the lesson herein contained? Why this dire disaster to a country whose family institution was once its security and its pride? The story of her decadence you are all conversant with; it is shortly told. Spoiled by prosperity and warped by an empty philosophy, she would not have her classic tastes, her beauty, and her art, disturbed by family cares and family ties.

One of her own countrymen writes that "the downfall of Greece was not owing to war or to plague, but mainly to a repugnance to marriage, and a reluctance to rear large families, caused by an extravagantly high standard of living." A strangely foreboding ring about these words when we think of the birth statistics of our British peoples! What happened to Rome and Greece may some day befall our own beloved country; grief may tread upon the heels of pleasure; the hour may come when, through national calamities or reverses, we may suffer a similar fate, and die for want of men.

Shall we not rouse ourselves ere it is too late? Our hope that we may escape the doom of these great empires of the past, now fallen to rise no more, lies in the fact that enough of us may to-day recognise the danger and say—We will not rest while in this matter we can do aught to save our country.

And what can be done? Are we but beating the air when we deplore the evils we have been considering? No, such a confession would proclaim us already the degenerates from whom no imperial race can rise, whose glory can only be in the deeds of their nobler ancestors. No; there is still place for repentance and amendment. But how is it to be accomplished?

First, and most of all, by education—education of our masses of ignorant men and women (patricians and plebians alike). Alas! that it is too often they who ought to be the exemplars who are the leaders in these practices of degradation.

And who are to educate?

Principally, such teaching must come from two classes—the churches of every denomination, and the professions.

To each of these is assigned its own sphere in the diffusion of knowledge and the inculcation of that wisdom which shall save us from race-suicide.

To speak first of the churches. Ministers of religion are chiefly interested in the fact that, to them, the wanton destruction of a human soul is a heinous crime against God and man, and utterly destructive of good morals. Surely theirs is in this respect an enviable position, namely, that they address an audience whose members profess to set other things than mere selfishness as the guiding motive of their lives, who, in a large degree, actually do wish to follow what is right. Must it not be possible for them in

some way, whether in public or in private, without the slightest breach of true modesty, to instruct their hearers about the grave moral evil we have been discussing? Many a genuinely good woman indulges in at least one of these practices without for a moment supposing that she is thereby wronging her nature no less than her country.

True, it may be impracticable in the present constitution of the Christian Church—in all branches outside the Catholic—to discuss in every case these matters privately between clergyman and parishioner; nor might they constitute a fitting subject for a sermon necessarily addressed to all and sundry. This may be disputable, but at least it cannot be denied that our churches gathered in congress or assembly, or speaking through their official heads, might do a vast amount of good by a solemn protest against these vices and devices which are ruining our nation. Such a protest could be seconded by private admonition by parents and others best fitted to impart it. Indeed, such instruction is every parent's duty.

Lawyers are interested because of the frequent violations of the law and the apparent helplessness of its officers in bringing the criminals to justice. If one law can be persistently disregarded with impunity, it tends to a disrespect for all forms of law. It should be well understood that the ovum has life from the moment of impregnation, and that to destroy that life without "therapeutic warrant" is murder in the eye of the law. Even from this standpoint, *irrespective of the religious and moral aspects*, lawyers can do much to disseminate this most wholesome and far-reaching biologic truth.

And now, turning to our own profession, stained as we are by the shameful conduct of some of its members—not all obscure,—who set gain before honour. Have we not a part to play in arresting the decline and fall of our country? Assuredly. We speak with knowledge and authority on the physical aspects of these scourges. We address not merely the man or woman who acknowledges a nobler nature to be appealed to, but also him or her to whom nothing weighs aught in the balance against immediate personal comfort and well-being.

Yet here, too, we have a sure hold. Many a youth, many a man, and many a woman, who will make light of any possible wrong done by his conduct to the laws of God and nature, will respond with alacrity to the

whisper of a highly probable penalty to be paid by his own body.

Let us then teach our boys that it is not alone for moral reasons that they should avoid the prostitute, open or clandestine—that disease, sooner or later, is almost inevitable—disease that may seem trifling at first, but which may entail life-long misery. Let us show them the picture of a general paralytic in his degradation and death, the locomotor ataxic in his hopeless and often heart-rending agony, the miserable victim of stricture or gonorrhoeal rheumatism in his pain, or, if they have a thought of less purely selfish ideas, let them view their future wives infected and ruined in health for life by the fruit of the wild oats he has too often sown under an indulgent smile from those who should have guided them better. “As matters stand at present, the growing youth comes to regard sexual purity in the male as something to be ashamed of. Example, evil teaching, pernicious literature, the stage, and physiologic promptings incline him to accept the fatuous notion that sexual indulgence, in season and out of season, legitimately or illegitimately, is a necessary factor in the life of the male. That it is a *sine qua non* to manliness he verily believes.” Thus speaks Lydston in his thoughtful book on “Diseases of Society and Degeneracy.” He goes on: “Boys should be disabused of the idea that man’s life revolves around his sexual organs, and should be taught that the creative principle has a higher aim than personal gratification. Above all they should be taught that the sexual passion is not only susceptible of control, but that the man who cannot control it is far from the physical ideal. . . . The lad’s selfishness should also be appealed to. He should be taught that physical perfection and early sexual indulgence are incompatible; the fallacy that sexual indulgence is necessary to good health should be dispelled.”

Let the young girl know, whether directly from the doctor or through the medium of her mother, the true meaning and the besetting dangers of her womanhood; let her also know, as puberty comes on, something of the more-than-risk attending marriage with an allegedly reformed rake.

Let the woman know the dangers, the ill-health, and unnatural state produced by cohabitation, coupled with the prevention of conception.

Let her be compelled to realise the hideous risk she runs in attempting to procure or get procured an abortion, even if done by an educated hand, far more in one of the filthy dens which abound in every great city.

Let us recommend no more debauchees to “settle down and marry some nice girl,” sacrificing an innocent on the altar of a rake’s chance of reform.

Let us have courage to tell the man who comes to us more honestly with an apparently cured gonorrhoea, and a question whether he may not now marry, that it by no means follows that his apparent cure is real, that because he has now no discharge or discomfort he may not therefore infect his young wife, and set alight in her the train of symptoms, the end to whose pain lies only in the grave. Let us insist on repeated and careful examinations ere pronouncing him perfectly clean.

Then as to other remedies for the present deplorable state of affairs:

One of the most commonly proposed in reference to venereal disease is the State supervision and regulation of prostitutes. This has been and is being tried, and, in certain restricted cases, admittedly with some good results. Yet, on deeper reflection, we shall be convinced that it is not a true cure for these ills.

Apart from the moral objection, which will unfailingly be taken to it by a large section of the community—and that to a great extent the very section on which we must rely for sympathy and support in our crusade—an objection grounded on the fact that such a measure involves the national recognition and licensing of vice—apart from this, “Regulation of Prostitution” stands condemned most urgently of all by the fact that it does *not* regulate. It has been estimated that in Paris only 10 per cent. of the habitual prostitutes are on the official list, in Vienna and Berlin only 15 per cent., and the others, by their fear of detection, are more likely than ever to conceal disease if they have it.

Furthermore, the clandestine prostitute is ever the more active spreader of disease even in our own non-regulated countries, and, with the false security which professed regulation gives, not only are more men and boys encouraged to indulge in vice, but they are likely to do so with less precaution or thought of possible consequences in the way of disease.

The fact should also be noted that venereal disease is quite as prevalent in those countries which have adopted regulation as in those without such supervision. Of other so-called cures, abolition of prostitution by law is evidently not the way to succeed. It could but add to the number of secret prostitutes those who at present are public, and deter those afflicted with disease from seeking treatment. On the other hand, the utmost should be done to provide hospital accommodation and attendance for the victims of disease who voluntarily submit themselves to treatment.

The conclusions of the New York Committee of Fifteen, a body of experts appointed to investigate and report on the social evil and its possible treatment, are summed up by Lydston as follows:—

(1) The evidence shows that extant European regulation is not a remedy for prostitution, nor even for its incidental physical ills.

(2) Moral considerations alone suffice to stamp as intolerable compulsory sanitary inspection of prostitutes for the purpose of making vice innocuous.

(3) Strenuous endeavours should be made to prevent tenement-houses overcrowding, which is a prolific source of immorality, and to provide better home environments for the poor.

(4) The establishment by public or private enterprise of pure and elevating forms of amusement as a substitute for low-class dance-halls, music-halls, and theatres, which serve to stimulate sensuality and debase taste.

(5) The amelioration of those conditions of the wage-earning class which tend to produce immorality through sheer physical want.

(6) The establishment of institutions for the treatment of venereal disease.

(7) The stern repression of all public manifestations of prostitution.

(8) The creation of a special body of "Morals police," to whom should be entrusted all the duties entailed by the adoption of the foregoing recommendations.

Lydston adds the natural comment that it is regrettable the committee did not touch upon the question of physical training and educational measures in the treatment of prostitution.

"The plays and books indulged in by the young demand careful supervision. Certain things which are the intellectual meat of

strong men are often deadly moral poison for youth. Openly prurient literature is often no worse in this respect than some productions that pass as classics, so far as the effect upon the undisciplined mind of youth is concerned. High-class literature may be even worse than the strictly prurient variety, because of the general endorsement of such books, and the refinement, social standing, and intellectual status of the characters depicted therein.

It is perfectly possible so to train children as to permit of censorship of their reading.

The wrong kind of reading has ever played a prominent part in populating the brothel.

Care should be taken not to expose children to the pernicious and debasing influence of the rotten modern play, and to correct such views of life as the example of some celebrities inculcates.

Parents should guard carefully against vicious and demoralising comradeships. The period of puberty, and the psychology of the child is being disturbed by hitherto unknown sexual impulses, is especially dangerous from this point of view. Sexual impressions made at this time may permanently pervert the psycho-sexual centres. The intimacies of boarding-schools, where due moral supervision is not exercised, are often responsible for sexual perversions, and the character of the future sexuality of the pubescent is likely to be dominated by early sexual impressions."

Lydston goes on to say that very few boarding-schools in the United States are, in his opinion, intelligently supervised. Wine drinking, cigarette-smoking, profanity, card-playing, and sexual vice are often indulged in by both girls and boys, and one boy or girl of this stamp can corrupt a large number of pupils.

Let us hope that these descriptions are not so applicable to Australia, but let us beware how we discredit too lightly their at least modified appropriateness.

The evils of alcoholism should be impressed on both boys and girls, especially the latter. Alcohol—more particularly in the case of women—is a frequent road to the street and disease.

The modern tendency to train girls to be social butterflies is a great evil, one that is easier to criticise adversely than to correct. The home is the greatest moral inhibitor in society. Yet domestic duties and accomplishments are considered unrefined and

undignified. Dress and society are the key-stones of the modern hot-house method of training girls. Girls trained in this manner are in danger from their very helplessness, when they are suddenly thrown on their own resources, or marry men who cannot provide the luxuries and social refinements to which they are accustomed. The so-called higher education fails here. This evil will prevail so long as mothers encourage in their daughters a spirit of resentment or indifference to home duties as something unworthy or undignified. The poor man's daughter, who believes herself better than her hard-working mother, is always in danger.

The age which shall restore the dignity of domestic labour will do a great work in antagonising the social evil."

Such are some of the suggestions for the lessening of prostitution and its attendant, venereal disease.

A word or two before closing as to the legal remedy for abortion.

In view of the notoriously numerous houses where this is done—their flauntingly indecent advertisements in the public press, the only too well-known fact that certain members of our own profession will do it at a price—it is obvious that we are on the horns of a dilemma. Either the law is inadequate, or the police are inadequate or unwilling to enforce the law. One or other of these alternatives must be true. Which is it?

Surely, at all events, the publication of any advertisement of treatment, or drugs purporting to "restore regularity" or "remove obstructions from whatever cause arising," might be made a penal offence for all concerned. Surely, too, it must be feasible in some way to check at least the unregistered abortionist's open misdoing. For the rest, the procuring of abortion for any cause whatever should be sternly discountenanced by the medical profession as a proceeding which, even if done in good faith, marks the unprogressive physician or surgeon, and is only worthy of the dark ages.

To those of you who have devoted thought to the all-important subjects of which I have been speaking to-night, other ideas and remedies for separate phases of these evils will doubtless occur. But one thing is certain—above them all stands our first and master remedy, *Education*, moral and physical, pointing the way our nation must take if she is to shun the dark pits of race-suicide, and endure. *By proving to herself but true.*"

PRESIDENTIAL ADDRESS.

Delivered before the Victorian Branch of the British Medical Association.

By G. Cuscaden, L. et L. Mid., R.C.P. et R.C.S. (Melbourne).

ON my retirement from the presidential chair, I cannot allow the opportunity to pass without offering you my sincere thanks for the great compliment you paid me in electing me to so important a position.

The British Medical Association, as you are all aware, is the most powerful and far-reaching body of medical men in the English-speaking community, and it is a satisfaction to me to know that, on vacating the chair, I am handing the reins to a successor who will preside over an increased and strengthened Victorian Branch, the union of our Society with the old-established and honoured Victorian Medical Society having been so happily accomplished during my term of office.

Holding as I do a position on the Women's Hospital staff, you will naturally expect an address dealing with the work of that department of medicine and surgery, but as I wish to be brief, I shall only touch on a few subjects on health matters that may interest you.

There is an old saying, "There is nothing new under the sun," and it really seemed true in most of our work until the name of Pasteur shone forth, revolutionising everything with his discovery of fermentation, and consequent infection.

Eighteen years of work as a general practitioner, striving to advance with the times, gave me the opportunities of using the improved technique which from time to time had been established. Compare the lying-in room of to-day with that of 18 years ago, and yet how well our patients did under those pre-aseptic conditions. It makes one think that, even to unhealthy surroundings, human bodies often become immune, and this fact encourages them to continue to live under such loathsome conditions.

To trace the chief cause of dirt and disorganisation in the homes of many of our fellow-citizens, we have not to look very far. We can sum it up in one word, alcohol, and its effects are not understated. We see around us in our daily practice systems degenerated, weakened, and rendered less resistant to the attacks of bacteria, tubercle and innumerable other contagious and in-

fectious diseases in these unhealthy bodies—truly a suitable soil for their propagation. Our lunatic asylums and gaols are filled with their offspring. To ameliorate this condition we require the united efforts of our fellow-workers amongst the religious teachers of all denominations, and I cannot lay too much stress, gentlemen, on the necessity for a better union of science with religion in fighting for this end. I hold it is our sacred duty to instil cleanliness into the homes of our patients, and to encourage our neighbours in that direction.

The position of health officer at the present time is really farcical; it generally falls to the lot of some busy practitioner, who can only spare the time to look into the cases reported to him. I am strongly in favour of health officers being appointed who have been specially trained for the work, and who would devote the whole of their time to the duties, and who would be paid a salary sufficient to induce men so qualified to apply for the positions. For the present, one might include amongst their duties the examination of school children for contagious and infectious diseases, the principal aim being the prevention of the spreading of infectious diseases in schools. Whooping-cough, measles, mumps, and chicken-pox are not now notifiable diseases, but are very common in schools, and very often cause permanent damage to the children's health. Eye-strain, defective teeth, post-nasals, and overcrowding would come under their notice; they might also give periodical lectures on hygiene, health, etc. To carry out the efficient inspection of schools, it would really be necessary to appoint education medical officers from amongst the local medical practitioners, who would call each morning in the course of their rounds and examine the school children. They should be paid a yearly salary for this.

The salaries of health officers varies very considerably—the highest paid is at the rate of £400 a year, the lowest £5. Altogether £5000 is annually spent on its health officers in this State, with, to my mind, very unsatisfactory results. Divide this sum amongst a number of whole-time health officers, who could be appointed by the Government or by groups of Councils to look after the health, sanitation, etc., of the district in which they would reside, and who would not be influenced by any fear or favour in carrying out their duties.

What is now the health officer's position? He has to choose one of two courses—do his duty, and be unpopular; be popular, and have an elastic conscience; under the circumstances, he is likely to become apathetic as regards his duties. I do not say for one moment, gentlemen, that there are not health officers in town and country who are honest to a degree, but, if they are too vigilant, their reign will probably not be of long duration.

Most municipalities are proud of their reputation for cleanliness. Should an epidemic occur, of course it is not the fault of the local Council, rather is it the direct result of Providence. Should the local health officer forget his prudence, and in strong and vigorous language describe the condition of affairs as they really exist, he will have the local Council up in arms against him, and will probably have his salary reduced, which is the least of evils he will have to suffer.

No one could say for one moment that sanitary administration in Victoria is a live and progressive movement at the present time. What is the remedy for these health failures? My suggestion is that Victoria be divided into, say, six districts, with a whole-time Health Officer residing in each, devoting his time and energies to the duties I have already mentioned. I am greatly afraid, however, that such a proposition will not find much favour, particularly in country districts. They do not care for too close inspection of their sanitary surroundings. To overcome this, let the Government take the matter in hand, and make the Health Officer a Government servant, who would do his duty fearlessly, without any possibility of his losing his position by his zeal in the cause of cleanliness. When the question of whole-time Health Officers came under the notice of the Shire Councils I noticed in the press the remarks of a shire councillor on the subject. I will quote what he is reported to have said:—"Very likely we would have an officer out at our slaughter-yard, or dairy, requiring alterations similar to those required in or near Melbourne, despite the fact that you are miles from habitation. The councils should be alert to prevent such a possibility."

According to this gentleman, the fact that you are remote from habitation should exempt you from having your dairy and cow

shed clean, and your milk supply free from contamination.

Even in our own fair city we cannot but be shocked at the method for disposal of household garbage carried on at the present time. It is the exception to see a properly constructed receptacle provided for the temporary lodgment of this refuse—dilapidated utensils of all descriptions, from kerosene tins to cardboard boxes, are to be seen leaking their filth on the city pavement.

Again, the carts that are used to convey this material to the dépôt are very often overflowing, and, consequently, a large quantity of their contents are deposited on the roadway. Surely an energetic Council, by enforcing its by-laws, can put an end to this menace to the public health. I have only to mention bubonic plague as an instance of a preventable filth disease. Had it not been for the money spent, and the vigorous measures adopted by that able administrator, the late Dr. A. Gresswell, it would have taken root here, as it has in our sister State.

Again, tuberculosis, a disease which causes the death of one-seventh to one-tenth of the human race, and from which we annually lose 800 of our population, is not treated in that vigorous manner it needs if the people of this country are to benefit by the discovery of the tubercle bacillus. Through overcrowding and ignorance, the spread of this disease is enormously increased, and it is the poor that usually suffer in this direction. Pulmonary tuberculosis is a disease of an infectious nature, and should be treated in the same manner, as regards notification, as typhoid, diphtheria, etc. In the United States and Norway notification is compulsory; why not in Australia? In my opinion it is absolutely necessary, from my experience as an ex-Health Officer, that it should be so, if we are to lessen the spread of this frightful scourge amongst the poor. Frequently I have seen the father or mother of a large family in the last stage of tuberculosis (pulmonary) living in surroundings calculated to infect all those around them. When such cases are reported, measures are at once adopted to prevent the spread of the disease, and arrangements made to have the patient placed in one of our sanatoria, and the premises properly disinfected. I am quite certain that, if such a course as I suggest is adopted, the mortality from pulmonary tuberculosis would be greatly diminished.

A little time ago the City Council passed a by-law making it an offence to spit on the footpaths, and had notices placed in conspicuous places requesting the public not to so offend. What is the result?—one prosecution, and the by-law a dead letter. One has only to look at the footpaths where men congregate to prove the truth of my statement. Having corrected these failures, with such a climate, its wide thoroughfares, such a perfect system of sewerage, we ought to be one of the healthiest cities under God's heaven.

In conclusion, gentlemen, I must thank you for your kind attention to this somewhat hackneyed matter. I wish most sincerely good luck and good-fellowship to the happy union which has been brought about between our two Societies.

UN-UNITED FRACTURE.

By W. Cleaver Woods, M.D., M.B., Ch.M. (Edin.),
M.D. (a.e.g., Melb.), Albury.

IN considering the treatment of un-united fracture I am fully aware that the subject is one which is not likely to produce anything startlingly novel in the way of surgical suggestion, the methods of dealing with such cases when met with being probably well known to you all. It is, however, not always the newest and most up-to-date subjects that afford the most interest on an occasion like the present; sometimes one is instructed more profitably by a discussion on a well-known topic than by the consideration of so-called exceptionally interesting items in practice. Anyhow, in dealing with one of the former category I am not without hope that the paper I have prepared may prove of some utility to the members here to-day as practical country surgeons.

The surgeon of 25 or 30 years ago considered it a bold measure to drive an ivory peg or a gilt-steel pin into an un-united fracture, and knew very well if a bad result was thereby engendered he must necessarily have recourse to amputation. In our days, owing to improved methods of surgical procedure and aseptic environment, such a disastrous termination is hardly possible, and free openings into limbs and joints, with cutting and chiselling to almost any extent, can be, and are, undertaken with the utmost confidence of a good result. Hence it is in these cases,

like many others, since the advent of Listerism, a variety of operation has been devised and practised in the different surgical schools, all with the one object of accomplishing in exceptional cases what nature herself, with but little aid of the surgeon, brings about in the large majority. The American schools particularly employ a diversity of method of holding refractory bones together; pegs, screws, drill-ends, wires, and specially complicated appliances of different forms, illustrated in their works, all being brought into requisition for the purpose. The Americans, indeed, as well as some London surgeons, go as far as to treat the large majority of fractures, whether recent or delayed, by these mechanical internal methods thought so unnecessary by surgeons generally elsewhere.

By the term un-united fracture is generally meant either of two conditions:—(1) Delayed union; (2) permanent non-union. Possibly these cannot be always sharply separated. Delayed union may easily lead either to permanent union or non-union. Cases of delayed union are common enough in both hospital and private practice, most of which, however, right themselves, provided the bones are placed in good position, with a suitable external fixation apparatus, and proper constitutional measures enforced according to the needs of the particular case. The designation "delayed union" is, after all, a matter of degree, and the question arises, How long is such delay to be allowed to exist without having to resort to more active steps to bring about proper union? From four to eight weeks, according to the position and nature of the bone, would appear to constitute, as a general rule, a normal period for union to take place after fracture; if such union be wanting only in firmness at the end of this time, the bones themselves being in a good position and their fractured ends what might be termed softly movable, that is, indicating only an imperfect ossification in the fibrous uniting textures, then in all probability a little further patience would be all that would be required to make the ossific process complete and the fracture sound. I show you here an example of delayed union in the tibia, which could not be classed as un-united, even though it took nearly four months to be certain that satisfactory union had been effected. In this case the subject met with a very severe accident—a lorry loaded with potatoes went over his

leg, crushing the lower third. The limb was set in the usual way, but as some doubt existed as to whether there was good union at the end of 15 weeks, there being some mobility, I was asked to skiagraph it, with the result which you see here. (See fig. 1.) It is almost needless to add that an extra two weeks' rest gave an excellent result.

In other instances of delayed union no such result occurs, where we have what might be called only an attempt at union of the fractured ends—a condition incapable of the slightest improvement and utterly hopeless

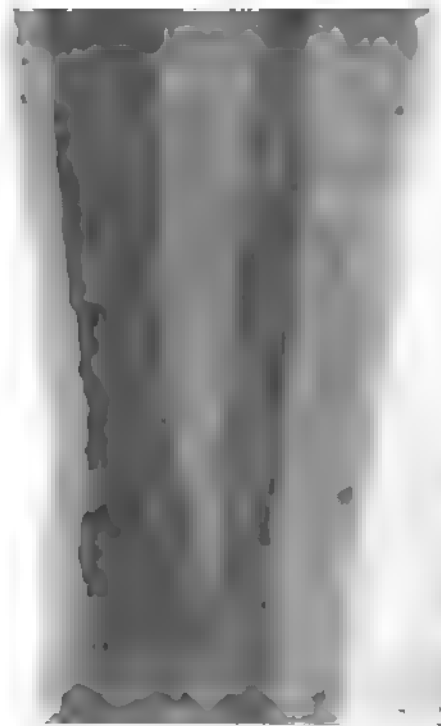


FIG. 1.—CASE OF DELAYED UNION REFERRED TO.

as regards a useful limb; or there may be the formation of a false joint, a condition of pseudoarthrosis, which, if let alone, only becomes exaggerated in nature's attempt to form a joint where it is not required.

I therefore think that cases of simply delayed union, with a probability of complete coalition at any reasonable interval, should not be included under the appellation of un-united fracture, but only confirmed conditions where there is a state of hopeless mobility between the fragments. Hence I propose to limit my observations to this class

of cases, and to give you examples as I proceed. It will be admitted that such cases are only amenable to radical measures being applied to bring about firm and satisfactory union. It is almost needless to say that confirmed cases of non-union in broken bones are very rare indeed, owing chiefly perhaps to the simplicity of setting fractures in the large majority of cases, and the readiness with which they unite, whether in good positions or sometimes faulty, resulting all the same in sound and useful supports. They are nearly always brought about by accidents of *great* severity, such as direct impact with hard and unyielding substances—a limb being crushed by a fall of earth, or ejected violently against fences, stones or trees. The vitality of the bone and its coverings in such cases seem to be irreparably reduced or partially destroyed, so that natural ossification is arrested at a certain point short of bony fixation. Hence it is that miners, railway men, jockeys, stockriders and such like are peculiarly apt to meet with accidents of this nature producing refractory breaks. The very rarity of un-united fracture in an ordinary practice makes one extra careful about dogmatising too exactly in speaking of the most appropriate treatment to be followed. The hospital surgeon should have an advantage in this respect over the man who confines his attention to private practice exclusively.

There is not a great deal of useful literature obtainable on the subject, many authors referring to its treatment in an offhanded way, as if it were a matter of consummate ease to resect a bone's ends and slip a wire or other fixing element between its broken extremities. Those of us who have done operations on cases of non-uniting fractures know by experience that such is not the case by any means. The process is difficult at every step, as well as prolonged, and to get a satisfactory result entails the most careful calculation and precise exactitude in the coaptation of the fractured surfaces. Where one bone is to be operated upon it is tedious enough, but where there are two to be remodelled in the one limb, the operation is doubly trying, and a period of from two to three hours may be safely reckoned upon for the full completion of the arduous undertaking.

The recognised treatment of un-united fracture is, in so far as one aspect is concerned, admitted in all schools—that is, the resection of the broken ends of the bone. Having

got thus far, we are landed in some diversity of method and variety of connecting apparatus. Some surgeons of the London school, and notably Treves, discard all connecting links whatsoever, and go as far as to say they are not only useless but risky and even hurtful. To the use of wire especially, a whole page and a half is devoted in Treves' "Operative Surgery," exposing its dangers, and finally condemning it as a delusion and a snare. He says: "I made use of it at one time, but have had good reasons for abandoning it. The wire can play but a feeble part in maintaining the fragments in position, especially, *e.g.*, in the thigh of a well-developed adult. The boring of the bones and the passing of the wire are often very difficult and tedious steps in the operation. Much damage has been done to the soft parts in this stage of the proceeding. When the wire is being twisted the bones may appear to be in good position; but when the splint is applied or the attitude of the limb altered, the wire may be found to have but little hold upon the fragments. It is true that the loop may be retained indefinitely without the patient being conscious of its presence in the limb; on the other hand it has caused much irritation, has induced intense neuralgic pain, has apparently led to suppuration and to a limited necrosis of the end of the bone. The removal of the wire after a period of six or eight weeks is often a matter of the greatest difficulty, especially when the wound has soundly healed. A large incision may be required, much bruising of the soft parts may be involved, and at the end the loop often breaks, and a piece of the wire has to be abandoned in the depths of the limb. I have operated, by the resection method alone, upon un-united fractures of the humerus, femur, tibia and radius, and have obtained better results by that means than ever attended the earlier operations in which I wired the fragments together. As a practical measure the wire is a delusion and a snare, so far certainly as the long bones are concerned."

It will be seen, therefore, that Treves is averse to the practice, and evidently has had some severe lessons and bad failures with the method. I don't wish to endeavour to contravert the statements of a recognised scientific and brilliant surgeon such as he is, but will leave these matters for discussion later on. So far as my small experience goes, all cases that I have operated on by this method of wiring the bones have been quite suc-

cessful, and not one of the terrors enumerated by Treves have been met with throughout. If after a time the wire gives trouble, it is not difficult to follow the sinus showing its position downwards, lay hold of it, and forcibly lever it out. Notwithstanding these objections, it is, I think, pretty generally conceded that the use of some intermediary element is recognised as helpful to the completion of the osseous process in hopelessly fractured ends, and this being so the fixation by wires, either through the bone or round it, or both, has practically superseded all others. The one objection to the use of the wire is that it is not absorbable; hence it must be looked upon as a foreign substance, deeply seated, even though it should give no signs of trouble. which may, in some cases, have to be removed by subsequent operation. The use of *absorbable* sutures in connection with fractures of long bones never seems to have been suggested, certainly not practised by any authority available to me. Latterly chromic gut and kangaroo tendon have been highly recommended for fixation of the patella and olecranon. Whether these will ever supersede wire in the long bones is questionable, but might, I think, be given a trial.

I will now deal with cases of un-united fracture which have come within the province of my own work, though none of them came under my care until they had established themselves as typical cases under the classification already given, and 12 to 18 weeks or more after the initial injury. Just before doing so I would draw attention to the appearance of the ends of a hopelessly fractured bone. We find that these have a rounded, stumpy look, with the medullary cavity almost occluded for an inch (or less) near the extremities. These chronic forms, too, are very hard at the seat of fracture, almost ivory-like in consistence, and hence exceedingly difficult to sever with either chisel or saw.

The first two cases I had were those of the femur, both in stout male subjects. Fracture in both was caused by violent accidents—one, a miner at Bethanga, by an explosion and fall of earth; the other by a fall from a height, where the man lay most of the night. In both cases union was absent at the end of 12 to 14 weeks after mishap, although the most careful attention was paid to their treatment. Operation being decided upon, in each of these the bone was exposed by free incision; the lower end of the femur was then denuded

of periosteum to the extent of about an inch, incised and layed back with other deep tissues, the separation being right round the bone in the usual way. The lower end was then tilted out, after being grasped and forcibly dragged by a strong lion forceps—a most indispensable instrument in these cases. In each instance this was attended with great difficulty, owing to the depth of the bone and a number of loose fragments, the result of comminution, that were deeply rooted about the fracture. It was then sawn through carefully with a butcher's saw, from before backwards, but the uppermost part of the bone was so fixed that too much injury would have accrued were the necessary force used to dislodge it; the chain saw was therefore threaded and passed behind it, and the section made from behind forwards. The drilling was made in both fragments at an angle of about 45 deg. into the cancellated tissue and an inch from the extremities; 22-carat gold wire was passed well tightened, twisted and beaten down on the surface of the bone, and snipped short. The union of the periosteum was made over all with fine catgut, and the upper tissues closed in the usual way. In each case the operation lasted over an hour and a half, and a Liston splint, already prepared, was used for fixation as soon as the patient was placed in bed, temporary splints being applied on the table round the seat of fracture, and one posteriorly.

One of these cases was done over seven years ago; the other about 15 months ago, and both patients have excellent limbs, with no apparent limp or other serious defect. The wires are still in, and so far have given no trouble whatever.

Case 3 is peculiarly interesting, I think—an oblique fracture of the tibia which, after 12 weeks' trial, had failed to unite. The exact nature of the accident has not been noted. The fibula had escaped injury. Fibrous union only had taken place at the seat of fracture, and there was fairly free movement in the vicinity. On exposing the part I was surprised to find movement in more than one direction, owing to two distinct obliquities of fracture at the same spot. I decided to remove a little over an inch of the bone itself, taking in the hinged area. No suturing was possible or necessary, the bone being in good position, but the vacant space was left to fill up of itself from the periosteum, which was as carefully as possible replaced and left intact. This, you will see, is

an instance of treating an un-united oblique fracture by excision of the fracture itself in the transverse plane. The case did well, and the young man has a useful limb, with no shortening or other defect, from which I conclude the excised portion of bone was readily replaced by the ordinary process of ossification.

In cases 4 and 5, the two remaining ones I have to mention, we have fairly clear skiagraphs of both, which may add additional interest to what we have to say about them.

Case 4 was that of a youth of 15 years of age who was thrown against a three-rail

fibrous union between the ends. By operation, the fracture itself, a thin section, with its fibrous connection, was sawn out parallel to the obliquity, and two gold wires inserted. The case made a good recovery, and the injured leg seems now quite as good as the other. There is, of course, no shortening, owing to the primary union of the fibula. One of the wires had to be removed about four months after operation, but the other remains still.

The last case, No. 5, was a fracture of both bones of the leg, which I saw between three and four months after the accident. The



FIG. 2.—CASE 4.—BEFORE OPERATION.

fence whilst riding a horse at a good gallop. The tibia and fibula were both badly broken, the fracture was compound, and this piece of bone was removed as the leg was being set. It is part of the crest and internal surface of the tibia. At the end of about 14 weeks it was very unsatisfactory, and there was distinct movement. I was asked to skiagraph it, and you see the result. The X-ray showed the fibula well united, but the tibia with a distinct gap in it. It was fractured obliquely with



FIG. 3.—CASE 4.—AFTER OPERATION.

man was run over by a waggon heavily loaded, and the injury a very severe one. The setting of the bones was hardly a triumph of surgical handicraft. The leg was quite useless, having a false joint midway between the knee and ankle. The skiagraph (fig. 4) shows the overlapping position of both tibia and fibula; there was, as would be evident, a shortening of over an inch in the limb. The operation on the tibia was performed from the anterior aspect, and after completion and closure of the wound the fibula was resected

and wired from a lateral incision. This was deemed most convenient, on account of the almost posterior relationship of the one to the other; the time occupied in the two separate procedures being close on three hours. The second skiagraph (fig. 5), with wires *in situ*, was taken two months after the operation. The case took nearly four months in all to firmly unite. The result has been in every way satisfactory, except the shortening, which, of course, persisted. This is, however, readily dealt with in the usual way of an



FIG. 4. CASE 5.—BEFORE OPERATION.

increased height in the boot. So much for the cases I have to refer to.

I have not touched on the occasional un-united fractures of the patella, olecranon, clavicle, etc., because I think the use of wire in these is generally recognised, and I have had no personal experience in such. There is, however, considerable difference of opinion in the long bones of both upper and lower limbs as regards its utility. I am quite ready to admit that possibly it *might* be dispensed with with equally good results, but all my cases have turned out so satisfactorily that I intend in any future ones to use it again,

considering the real risk exists in trying to do without it. In fractures of the femur or humerus, i.e., when a single bone is only involved. I certainly think wire a useful extra support for the first few weeks, especially so as we find that the fractured bones, particularly the femur, are deeply imbedded in the tissues and bound down by strong and powerful adhesions.

¶In addition to these it is important to note that the two ends, if not actually overlapping, are seldom in the same plane, and

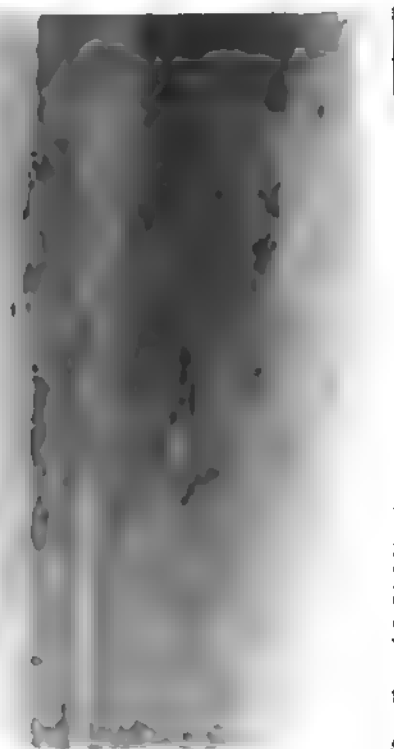


FIG. 5. CASE 5. AFTER OPERATION.

great force may be required to bring them into line. Now this force having been used to strongly lever or drag them into correct position after resection, it almost necessarily follows that, if left without direct support in the shape of a wire or something powerful enough to retain them there for a time, they will tend to revert to the old faulty position, and thereby nullify any chance of a good result; whereas if that direct bond between the ends be established during the earlier period of the process of ossification, a gradual displacement is far less likely to take place. This I believe to be the chief utility of the wire. When one

bone only is in question, such as the femur, it appears to be of distinct advantage. It is all very well to talk about placing the ends so that they may "fall easily together"; if this were such a simple measure as it sounds, probably wires would be less needed, but, so far as I have seen, it is almost impossible to so loosen one of these long-fractured and displaced ends in order that they fall easily together, without causing grave injury to surrounding tissues and very free bleeding by the separation of tough and unyielding adhesions. There is, further, a very considerable risk in so doing of instituting a new cavity posteriorly, just in the position least favourable for efficient drainage, and thus encouraging infection of the wound.

In cases where there are two bones in the limb, and one has already united, there does not seem to be the need of suture so much, as the united bone acts as a splint for the other. But where both bones are hopelessly fractured in the same limb, I look upon the wire connections as quite indispensable.

The difficulties of operation in bad cases must be apparent to all. At every step they are very marked. The exposure and clearing of the bone, the sawing of the ends and protection of the underlying and surrounding important structures, the drilling process and the passing of the wires, are all alike difficult and tedious. The strictest asepsis is necessary, as in other surgical procedures. The incision employed has always been an elongated flap in the perpendicular axis, and the sutures, except for the periosteum, which is catgut, all of silk.

As regards the last case, that of the tibia and fibula being done at the same time, I have so far not seen one such recorded. Treves says he has "operated on the humerus femur, tibia and radius," but does not mention a case similar to this.

The one real danger I have met with is that of hæmorrhage, and in this last case only, which was very intractable for a time. It was, however, finally overcome by bending the whole limb at a right angle to the trunk, from the hip, and suspending it, splints, bandages and all, to the ceiling of the room for 48 hours after the operation.

In conclusion, let me say that I have not thought it necessary to enter into minute details in the treatment of cases enumerated, but rather to deal with the methods adopted, from a practitioner's standpoint. I consider myself fortunate in being able to quote from

five cases upon which I have been called to operate for this rare condition. I would emphasise the tedious nature of the operation for un-united fracture, whilst strongly recommending the wiring of the ends in suitable instances. When once non-union is fairly established, resort should be had to radical measures forthwith. I trust you will excuse me giving you so much of my own work in this paper, apology for which must be found in the fact that my own small experience in these cases may possibly be a practical help to some here to-day, should they be fortunate enough in the future to meet with similar forms of recalcitrant fracture.

(Read before the Border Medical Association.)

A CASE OF TETANUS.—RECOVERY.

By F. W. West, M.B., Ch.M., Camden, N.S.W.

ON October 30th I was called to see Miss B.S., *ætat* 18 years. On arrival I obtained the following history:—

Exactly three weeks before, whilst moving furniture, the end of an iron bedstead had fallen on her foot and produced a punctured wound of the right big toe just beside and on the inner side of the toenail. The wound had been painful, and although well washed with boracic lotion and treated with zambuk had refused to heal for two weeks. There had been some dirty discharge all along, until one morning a piece of shoe leather, evidently pinched out of the shoe, had come out of the wound, which then healed within a few days. Towards the middle of the second week patient had been out of sorts and had pains in her right leg, abdomen and right side, but had continued to go about, and the day before I saw her she had been helping at a flower show. On arriving home from the show she had gone straight to bed, but had not slept owing to pains, which kept coming on and doubling her up; also her jaws and the back of her neck had become stiff and the pains kept on getting worse. Bowels had been relieved by castor oil the same morning. Patient had vomited food twice after taking the oil.

On Examination.—Well nourished and developed girl. Face slightly flushed. Decubitus dorsal. Peculiar set sort of smile on face. Tongue furred and a difficulty in putting it out and opening mouth owing to a spasm of masseter muscle. Head held slightly backwards, with pain on any attempt

to turn it. Heart and lungs normal. Abdominal muscles very rigid, and any attempt at palpation caused great pain. Legs held semiflexed and stiff, pain on extension. Knee-jerks violently exaggerated, producing a regular knee clonus; slight ankle clonus. All superficial reflexes very exaggerated. Pupils react to light and accommodation. Some little difficulty in turning the eyes upwards. On inner side of right big toe beside the nail was a small recent scar. During the examination patient had two definite tetanic convulsions of the opisthotonic type, each convulsion being preceded by a peculiar cry and each convulsion lasting about one minute. Between the convulsions the muscles all remained rigid. (Rissus sardonius marked during convulsions.) Temperature 102°, pulse 84. Urine 1018, acid urates, high coloured, scanty, no albumen or sugar.

Patient put on to a mixture of bromide of potassium gr. 30, and chloral hydrate gr. 20, every two hours unless asleep. Liquid nourishing diet in small quantities as frequently as possible. Absolute quiet in a darkened room, with avoidance of everything to disturb the patient as far as possible. Wired to Sydney for anti-tetanic serum (which did not arrive for three days, being wrongly addressed).

31st.—Patient had a sleepless night, with continuous pain and many spasms. Temperature 100°, pulse 80. Taking food a little better; oz. i. ol. ricini to be given. 8 p.m. same day, as pain was very severe and spasms frequent, $\frac{1}{2}$ gr. morphia was given hypodermically; also as bowels had not moved an enema was administered. The spasms and convulsions were more severe than on the previous day, the body being arched slightly off the bed and resting mainly on the back of the head and soles of feet.

November 1st.—Slept one hour after morphia. Temperature 99.6°. Bowels had moved twice since enema. Muscles still as rigid; spasms less frequent. 8 p.m.: Violent pains and spasms, but more of the pleurosthotonic type; $\frac{1}{2}$ gr. morphia given.

November 2nd, a.m.—Slept two hours; felt better; taking food well; can open mouth easier. 8 p.m.: Had a good day, with only eight spasms; no morphia given. 10 p.m.: Sent for in a hurry. Patient had been greatly disturbed by the town fire-bell, which had been rung violently and which stands just opposite the house. When I arrived patient was in a convulsion and was literally standing

on her head and feet. $\frac{1}{2}$ gr. morphia relieved pains, etc.

November 3rd.—No sleep at all; pains bad and frequent; small spasms. Patient drowsy, but cannot sleep. $\frac{1}{2}$ gr. morphia (bromide and chloral given all this time, as mentioned). As the antitoxin had at last arrived 10 cc. was given into the thigh. 8 p.m.: No better; $\frac{1}{2}$ gr. morphia.

November 4th.—Slept four hours. Temperature normal. Hungry. Slight pains and spasms. Bowels open. 8 p.m.: Just as bad as ever. Pains and spasms continually. Patient getting very weak and tired out. $\frac{1}{2}$ gr. morphia.

November 5th.—No sleep. Temperature normal, pulse 86. Taking food. Slight pain and spasms. All the muscles rather less rigid. Marked bromide rash. 8 p.m.: Pains and spasms again bad. $\frac{1}{2}$ gr. morphia.

November 6th.—Bad night; feeling very heavy, but cannot sleep. Amount of bromide and chloral reduced to half. Can open mouth fairly well, and the fixed smile between spasms gone. 8 p.m.: Bowels open through day. No spasms. Taking food better. Pains coming on. $\frac{1}{2}$ gr. morphia.

November 7th.—Slept five hours. Feels better. Tongue getting clean. Pains better except in legs. 8 p.m.: Had two pleurosthotonic spasms through the day, and at times severe pains. $\frac{1}{2}$ gr. morphia.

November 8th.—Had fair night. Temperature normal. Bowels opened. Pulse 78. Taking food. 8 p.m.: Two spasms, but not severe; general rigidity less; still knee clonus. $\frac{1}{2}$ gr. morphia. Complaints of soreness at seat of injection of antitoxin.

November 9th.—Fair night. Slept four hours. Difficulty in raising upper eyelids, and cannot see well. 8 p.m.: One spasm, not much pain.

November 10th.—Slept all night, but restless in sleep. Temperature normal. Bowels opened. Anxious to take meat; a little grilled steak allowed. Pains mainly in legs and on right side of abdomen. 8 p.m.: Pain severe in right side of leg. $\frac{1}{2}$ gr. morphia.

November 11th.—Slept well. No spasms, legs stiff.

November 12th.—Still improving. Bromides discontinued. Eating well.

November 13th.—Still improving.

November 14th.—Found patient sitting up and anxious for more food. Tongue clean, bowels acting daily. Menses had come on through the night and had been three days late, for the first time since they began.

November 15th.—Sitting in chair. Legs still stiff, and exaggerated knee-jerk; otherwise well.

November 18th.—Completely convalescent. I did not amputate the toe or interfere with it in any way because of the length of time after the probable inoculation and because the wound was quite healed. I cannot say I found any benefit from the antitoxin, but the loss of time in obtaining it did not give it a fair chance, as I understand that it, as in diphtheria, must be given early to be most efficient.

January 30th.—Saw patient to-day. She has been away for a trip, and is as well as ever she was in her life.

REVIEWS AND NOTICES OF BOOKS

THE PROPHYLAXIS AND TREATMENT OF INTERNAL DISEASES. By F. Horsheimer, M.D. New York and London: D. Appleton & Co. Sydney: Angus and Robertson. Price, 23s.

This book is one in which the reviewer finds it a little difficult to say all that ought to be fully said in a brief notice. The work bears evidence of care, wide reading, careful compilation, and in most instances gives sound, wise advice. Here and there the advice, perhaps, is not quite wise, here and there are a few obvious errors, and now and then where the subject is evidently not one familiar to the author there is evidence that he has not wholly grasped the meaning of the authorities he has consulted. Still, all things considered, one must acknowledge that the information conveyed is wide, full and correct, and, as far as it goes, to be commended. Like many American books, this treatise is needlessly verbose, and it may be fairly asked—Does it supply a pressing want? Why should the prophylaxis and treatment of disease be divorced from the etiology and diagnosis? If Dr. Forcheimer has devoted the labour entailed in producing this volume of 613 pages he might as well have written a complete practice of physic instead of the excellent but emasculated book before us. It never could, even in a completed form, have shone in the same firmament from which Osler's great work sheds its rays, but it would at least have been a safe guide. With many things in it to admire and find useful, its *role* will be rather the dogmatic help of the lazy man, who having got a name to the disease of his patient looks to the work for treatment. In this rather contracted sphere of usefulness it certainly merits the full confidence of those who consult it.

THE RÖNTGEN RAYS IN THE DIAGNOSIS OF DISEASES OF THE CHEST. By Hugh Walsham, M.A., M.D., Cantab., and G. Harrison Orton, M.A., M.D., Cantab. Pp. 80, 8vo., with 18 plates and 22 illustrations in the text. London: H. K. Lewis. 1906. Price, 6s net.

Chapter I opens with a description of apparatus and the method of examination. They recommend a Wehnelt interrupter worked through a shunt rheostat

with a Volt regulator as being very satisfactory, and as a rectifier the valve tube of Villard or the high tension rectifier as supplied by Watson, which latter requires much less attention. For radioscapy, when all the work is done in darkness, the radio-chromometer of Benoist is found to be of great service for testing the penetration at any given moment. As for tubes, the pattern known as "Osmo-regulator" is very favourably mentioned. If possible, the patient should be standing, or sitting on a music stool with a saddle-top attachment, or in cases of necessity the recumbent position on a canvas couch may be employed. A description is given of Guillemot's chassis, which enables the focus tube to be moved in all directions. It is also provided with an "iris" diaphragm. The method of procedure in orthodiascopy is clearly described. This is most essential when accurate measurements of the size, say, of the heart or an aneurismal sac are required. In examining the chest the authors always employ five chief positions, viz.: (1) The anterior examination, (2) the posterior examination, (3) the right anterior oblique, (4) the left posterior oblique, (5) the left lateral. Special stress is laid on restricted movements of the diaphragm on the affected side as being one of the earliest signs of phthisis. Then follow chapters on pleurisy with effusion, the heart, pericardial effusion, and thoracic aneurisms. The whole subject is deftly handled, and, fortunately, is devoid of padding. It will be of very great value to all those interested in this subject.

A TEXT-BOOK OF DISEASES OF WOMEN. By Barton Cooke Hirst, M.D., Professor of Obstetrics, University of Pennsylvania. Second edition, revised and enlarged. Octavo of 741 pages, with 701 original illustrations, many in colours. Philadelphia and London: W. B. Saunders & Company. 1905. Melbourne: Jas. Little. Price, 21s.

We reviewed Dr. Hirst's manual on the appearance of the first edition three years ago. It has now been revised and enlarged by the addition of new matter and of many illustrations. The latter are beautifully executed. The chapters on methods of gynecological examination and on the technique of operation are particularly good. Altogether the work gives a comprehensive account of its subject, and is clear and practical in style. It can be thoroughly recommended.

GREEN'S ENCYCLOPEDIA AND DICTIONARY OF MEDICINE AND SURGERY. Vol. I and II. Edinburgh and London: Wm. Green & Sons. 1906.

These volumes extend from Aachen to Ear, occupying 1066 pages, and represent the work of many authors of high reputation in the profession. The object of this work is to combine the advantages of a cyclopaedia with those of a medical dictionary. With this view many subjects are dealt with at considerable length, while others are treated in scarcely more detail than is usual in a so-called dictionary. The text is arranged in two columns, the type being excellent and the printing clear. The illustrations are numerous, but not profuse, and are of high merit. The short time that has elapsed between the issue of the first volume and that of the second give promise of the entire series being completed at no distant date, and thus the work will represent a definite period in the progress of medicine and surgery.

STUDENTS' HANDBOOK OF OPERATIVE SURGERY. By Wm. Ireland de C. Wheeler, M.D. (Dub.), F.R.C.S. Crown 8vo., pages xii+300. London: Baillière, Tindall & Cox. Sydney: L. Bruck. 1906. Price, 5s net.

This handbook deals in a plain and straightforward fashion with the recognised operations in surgery. It is concise and makes no claim to elaboration of detail. As a students' book and one which may be rapidly read it will serve its purpose very well.

THE AMERICAN ILLUSTRATED MEDICAL DICTIONARY: a new and complete dictionary of the terms used in medicine, surgery, dentistry, pharmacy, chemistry and the kindred branches, with their pronunciation, derivation and definition, including much collateral information of an encyclopædic character. By W. A. Newman Dorland, M.D. Fourth edition, revised and enlarged. Large octavo of over 850 pages, with 2000 new terms. Philadelphia and London: W. B. Saunders & Co. Melbourne: James Little. 1906. Price, 19s.

We reviewed the second edition of this work in April, 1902, and then expressed the opinion that the work had been admirably designed and carried out. The former edition extended to nearly 800 pages, while that now under notice contains over 850 pages, and has been otherwise improved and brought up to date, inasmuch as 2000 new terms have been added to the text. The printing and binding have been maintained at the high standard set by the earlier editions, and the value of the volume is enhanced by the addition of over 100 new and elaborate tables and many handsome illustrations, all of which that are rendered more descriptive thereby being in colours. The author and publisher are to be congratulated on having brought their dictionary to such a high state of excellency.

THE EXTRA PHARMACOPEIA OF MARTINDALE AND WESTCOTT. Revised by W. H. Martindale, Ph.D., F.R.C.S., and W. W. Westcott, M.B. (Lond.), D.P.H. Twelfth edition. Pages, 1075; size, medium 24mo. London: H. K. Lewis, 136 Gower-street, W.C. Price, 10s net.

About 250 pages have been added to the eleventh edition of this book to form this the twelfth. Current literature has been searched with respect to all the more important recent results in therapeutics, organic and inorganic pharmaceutical chemistry. In the section organotherapy preparations of the duodenal membrane, suprarenal and thyroid glands, and the method of treatment by the inspissated milk and blood of thyroidectomised animals have received careful attention. In the section antitoxins the subjects of anthrax, malaria, plague, cancer, gonorrhœa, leprosy, tetanus, trypanosomiasis, tuberculin, vaccine, etc., have all been brought up to date; the latest views on opsonins are described. The method of examining blood and urine by determining the freezing point, the precipitin test for blood, and a number of new stains have been added. In the bacteriological section, notes on the organisms of filaria, dysentery, trypanosomiasis, malaria, yellow fever, influenza, plague, ringworm, and relapsing fever have been added. The section on radiology has been brought fully up to date. The book can be recommended as a wonderful accumulation of useful information relating chiefly to British preparations, and is compressed in a surprisingly small space (5½ inches by 3), and yet so clear is the printing and admirable the arrangement that reference to any particular section can readily be obtained.

DISEASES OF THE URETHRA. By P. Clennell Fenwick, M.B. (Lond.), F.R.C.S. (Edin.) Price, cloth, 10s; cardboard, 7s 6d. Melbourne: James Little.

This is a very good book, both for the student and the general practitioner. Though the author professes that he is no specialist in urinary diseases, he shows that he has a very special knowledge of the subject of which he treats. There is a marked lack of verbosity, the whole subject being treated simply and straightforwardly.

The treatment of the urethra is gone into very fully, and many prescriptions have been added. We think it hardly advisable that the treatment of tender patches within the urethra should be carried out without the assistance of a urethroscope. Still, this is a small matter. The book will be very welcome to those who want a short readable account of common trying conditions.

COMMON COMPLAINTS AND SIMPLE REMEDIES, WITH PLAIN INSTRUCTIONS FOR THE USE OF THE UNIVERSAL HOUSEHOLD MEDICINE CABINET. By Samuel T. Knaggs, M.D., etc., Sydney.

This little handbook of domestic medicine is published by Anthony Hordern and Sons, and seems fully to merit the confidence of the public. It will find its most useful sphere in the bush, where medical attendance is less easy to obtain than in populous centres. With a few small details of treatment the captious critic might perhaps with justice find fault, but taking the advice given as a whole the publication fully merits the confidence of those for whom it and the medicine cabinet are specially got up. It is a small matter, but the title page might surely have been better expressed—for the Plain Instructions are *for use with* the Universal Medicine Cabinet, not for the use *of* as printed. Further, it is also an immaterial point, but Dr. Knaggs is so well known both to the public and the profession of New South Wales that we had rather that the publishers had seen fit to omit to mention the *greater* number of the appointments held by the author. This brochure does not attempt to teach too much, nor does it tend to make the layman fanciful about himself or lead to the dangers which come from a little knowledge. On the contrary, it does what it lays itself out to do—to give good, simple advice on matters which, in an emergency or in the absence of skilled aid, may be dealt with at home until the medical man arrives.

THE PARIS MEDICAL JOURNAL. Edited by A. A. Warden, M.D., 9 Rue Chalgrin, Paris.

This is a very well-illustrated monthly journal of 25 pages, containing a *résumé* of the work of the French medical schools, to which the leading members of the profession in Paris contribute. It contains the clinics from the hospitals, portraits of leading French medical men, pictures and descriptions of the hospitals and health resorts. It is published in English and costs 13s 6d posted to Australia. This gives an excellent insight into French hospital work for anyone wishing to visit Paris.

LA CLINIQUE. Octave Doin, éditeur, 8 Place de l'Odéon, Paris.

A weekly journal of 16 pages devoted to medicine, surgery, therapeutics, excellent formulae, jurisprudence, etc., etc. Well illustrated. In French. 12s a year, posted to Australia.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH FEBRUARY, 1907.

THE NECESSITY FOR UNION IN THE PROFESSION.

IN the course of an address delivered to the medical profession in Sheffield recently, Sir VICTOR HORSLEY, the ex-chairman of the representative meeting of the British Medical Association, and lately a member of the General Medical Council of Great Britain, took occasion to deal with some of the burning questions of the day in the medical world.

He referred to the various causes which have operated, and are operating at the present time, to reduce the amount of remunerative work for the profession, enumerating specially the reduction in the amount of disease as a result of improved sanitation, the diminution in the birth rate, counter practice by pharmacists and the custom of self-medication by tabloids, hospital abuse, and the overstocking of the profession. With these various factors at work, there is a tendency to a reduction in the income earned by the medical practitioner, and hence necessity for union in the profession if the general welfare of the public is to be maintained.

Sir VICTOR HORSLEY has no scruples in using the term trade union, as applied to the union which should exist amongst medical men of the present day. The day has passed when individual medical men can stand aloof from their fellows and refuse to join an association, because it appears to them to be of no special benefit to themselves. The strong must help the weak, and by all combining in membership of the one organisation which exists in the profession—the British Medical Association—we shall all be helping one

another in our professional life. But we have to remember that we cannot all see eye to eye in all matters, and full allowance must be made for difference of opinion and difference in action, provided we are united on all essential matters.

The recent union of the two medical associations in Victoria shows what can be accomplished when medical men are prepared to meet and sacrifice personal feelings for the common weal of the profession. We may say that now the profession throughout Australia is united in membership of the British Medical Association, but we recognise that in the different States local conditions may determine at present a difference in attitude towards certain questions. For example, the conditions of lodge practice, the recognition of certain quasi medical benefit institutions, the relation of the profession to the hospitals, etc., are questions which must be decided at present according to local usages. But we see no reason why the profession throughout Australia through the British Medical Association, having agreed upon essentials, should not be able even on these matters to reach some uniformity of action which would lead to a genuine reform in the conditions of contract medical practice, to the abolition of attendance on all illegitimate medical benefit associations, and to the abolition of hospital abuse. It must take time to secure these ends, but with the development of the Australasian Medical Congress into a meeting of the Australasian Branches of the British Medical Association, the machinery will be set in motion, which will result in an improved status of the profession throughout this portion of the British Empire. We would appeal, then, to all members of the profession to sink petty personal differences and selfish interests, and join the local Branches of the British Medical

Association, and not only to become members but to take an active interest in the welfare of the Branch to which they belong.

THE FUNCTIONS OF THE NUCLEUS.

SOME fifty years ago the great German pathologist, VIRCHOW, insisted upon the all importance of the cell, and his dictum, *omnis cellula e cellula*, has been the keynote of all pathology since his time. But the more recent investigations on the physiology and pathology of the cell have thrown much light upon the extreme importance of the nucleus of the cell, and the address by Professor ADAMI at the annual meeting of the British Medical Association in Toronto last year is a masterly summary of the present position of our knowledge of the structure and functions of the nucleus of the cell.

The various facts which have been recorded for many years past by individual observers in zoology and botany, cytologists, physiological chemists and morbid histologists all point to the conclusion that the "nucleus is the dominating structure in the cell, dependent, it is true, upon the cytoplasm or cell body, but nevertheless dominant." It is remarkable that the chemical structure of the nucleus differs from that of the cell body. In the nucleus we find certain substances, such as phosphorus and "masked" iron—that is, iron which can only be recognised by the ordinary chemical tests after the nucleus has been subjected to some preliminary dissociative treatment,—which are present in but very minute quantities, if at all, in the cell body. On the other hand, as MACALLUM has shown, there are certain inorganic substances, notably potassium and the chlorides, which are found to be present in the cell body and absent from the nucleus. The iron and phosphorus in the nucleus appear to be of the utmost importance in bringing about oxidative processes.

These and other chemical considerations point to the conclusion that the "nuclear material possesses in itself potentialities superior to those of any ordinary constituent of the cell body."

The dominating influence of the nucleus in maintaining the complete vegetative and functional activities of the cell is demonstrated by various considerations. A cell deprived of its nucleus either by natural processes or by artificial methods may continue to exist for a considerable time, and during that period can perform its functions. The ordinary mammalian red-blood corpuscles may live from 15 to 30 days, but during that time show no sign of growth or reproduction, and numerous investigations on enucleated cells of lower plant and animal life have shown that in these cells the higher metabolic activities are incomplete: they cannot undergo cell division and multiplication. These observations point to the conclusion that the nucleus is therefore "essential, not merely for the vegetative but for the higher metabolic activities of the cell and their due co-ordination." The fact that the nucleus alone deprived of cytoplasm is unable to regenerate the cell shows that, although the nucleus exerts a dominating influence on the cell activities, the association of the nucleus with a certain amount of cytoplasm is essential for the discharge of all the functions of the cell. This is still further borne out by the investigations as to changes in the nucleus during cell activity. It is well known that there are changes in the size and shape of the nucleus accompanying cell function. OGATA in 1883 drew attention to the granules or plasmosomes which appear in the nucleus at the beginning of secretory activity, and which eventually become part of the protoplasm of the cell. Other observers have since confirmed these observations, and have shown that during cell secretory activity sub-

stances are formed in the nucleus which subsequently diffuse out into the cell protoplasm, and these meeting with a constituent of the latter form the zymogen proper. The indications from these observations are clearly that the "higher syntheses, associated with growth, and those governing the specific enzyme actions of the different forms of cell, are determined and initiated by the nuclear matter."

We find this dominance of the nucleus over cell growth and activity further supported by the investigation of pathological conditions. The great variation in the size and shape and appearance of the nuclei of the cells of a neoplasm has long been noted, and in past time led to the belief in the existence of intranuclear parasitic organisms as the cause of the new growth. But the majority of pathologists at the present time regard a neoplasm as a condition of aberrant cell growth brought about by some primary alteration of cell environment. This alteration in cell environment leads to a diverting of the normal functional activities of the cell, to the vegetative and proliferative. And associated with this we find abundant and irregular mitoses in the nuclei of the cells of the growing tumour. There would thus appear to be an intimate relationship between these pathological variations in the nuclei and the abnormal cell growth seen in malignant tumours.

We thus see what a wide field for investigation is opened up, and the extension of our knowledge of various physiological and pathological cell processes will be based upon a clear recognition of the principle of the predominance of the nucleus in the development of the full activities of cell life.

Charitable Donations and Bequests.—A bequest of £50 has been received by the Gundagai Hospital from the estate of the late Mr. W. Coggan.—A donation of £20 from the Colonial Sugar Company has been received by the Maclean Hospital.

THE MONTH.

Medical Commissions in the Royal Navy.

Some three years ago the Admiralty decided to allot commissions as medical officers in the Royal Navy to qualified candidates in Australia and New Zealand at the rate of two in each year to candidates from the Commonwealth and one in each alternate year to candidates from New Zealand. This offer was to hold good for three years, but it appears that no Australian student entered for any of these commissions. A notification has now been received from Captain Collins, the Commonwealth representative in London, intimating that the commissions are to be available for another term of three years. The candidates are to be selected by the Governor-General of the Commonwealth and the Governor of New Zealand respectively, after consulting the Commander-in-Chief on the station, and subject to recommendation by the University authorities. The candidates must be registered and must hold suitable certificates in both medicine and surgery, granted by the Universities of Sydney, Melbourne, or Adelaide or New Zealand. Another condition is that they must either be nominated direct or selected after passing an examination held by the local universities, according as the Governor-General or the Governor and the Admiral on the station may determine. They must also pass the physical examination referred to in clause 3 of the regulations for the entry of candidates. The selected candidates are to be appointed provisionally only, their commissions in the Royal Navy being determined by the result of the course of training at Haalar, in which they will be expected to qualify to the satisfaction of the naval medical authorities.

School Hygiene.

At the recent meeting of the Australasian Association for the Advancement of Science, Dr. Elkington, Chief Health Officer for Tasmania, read a paper on this subject. In the course of his address he stated that the reform was initiated early in 1905 by the delivery of lectures to teachers. The average attendance was over 100, and keen interest was displayed. Articles on hygienic subjects were published in the official education journal, and instructional work was generally begun. The hygienic aspect of the school

premises problem had been settled by bringing it under his jurisdiction, and at Upper Barrington up-to-date ideas had been illustrated by a new type of building, and the cost had proved no greater. Attention had been paid to sanitary requirements, and the medical inspection of schools was now regarded as an essential factor. During 1906, at his suggestion, an exhaustive examination was made into the physical condition of 1200 children attending State schools in Hobart. This was completed by him in three months with the professional assistance of his colleague, Dr. A. H. Clarke. The conditions found were even more serious than previous general observations had led them to believe probable. On every side were patent evidences of the absolute necessity for medical supervision of children. This had been sanctioned by the Government, and a systematic inspection of Launceston and Hobart schools would be made in conjunction with two local practitioners, who would devote part of their time to the work. This important development would date from the assembling of schools this year.

A New Site for the Melbourne Hospital.

The question of the rebuilding of the Melbourne Hospital is still surrounded with difficulties, and no further progress has been made. A somewhat remarkable scheme has been recently propounded, which, however, according to the Melbourne daily press, is quite outside the range of practical politics. It has been suggested that the Melbourne Town Hall should be sold for use as business premises, and it is estimated that the price obtained would be £300,000. The City Council would then purchase the Melbourne Hospital site for £120,000, and spend the balance, £180,000, in erecting a new Town Hall there, while the Melbourne Hospital would find a new home in a modern building to be erected on the present site of the pig and cattle markets. The hospital committee would spend the £120,000 received in erecting and equipping the new building there. The City Council having thrown in the cattle and pig market site free as a part of the bargain would have to acquire a new site at one of the outer suburbs. Thus the City Council would lose its present Town Hall and cattle and pig market and gain a new Town Hall on the present site of the Melbourne Hospital, while a new Melbourne Hospital would be provided on a more suitable site than the present.

While it is admitted that a new hospital on modern lines and on a suitable site is urgently needed for Melbourne, the scheme outlined seems hardly possible or probable of accomplishment, and in the meantime we can only hope that the hospital committee will lose no further time in arriving at a satisfactory solution of their difficulty.

Oddfellows and Hospitals.

At the annual meeting of the Sydney District of the Manchester Unity Oddfellows, while the matter of the donations to the various public hospitals was under discussion, a complaint was made that patients belonging to their order were refused admission to the hospitals, ostensibly on the ground of there being no room, the insinuation being that the real reason for refusal was that the patients were recommended by the medical men who were not members of the British Medical Association. If this were the real reason, the officials of the Manchester Unity Oddfellows' Institute should realise the disability under which they are placing their members by continuing to flout the wishes of the medical profession, as expressed by the New South Wales Branch of the British Medical Association. But quite apart from any such considerations, it should be remembered that members of friendly societies are provided with medical attendance and medicines, and that it is only under exceptional circumstances that they are eligible for hospital treatment. It is one of the abuses of hospitals that subscribers consider they have a right to demand the admission to hospital of any patient they may choose to recommend, irrespective of the eligibility of the patient. But we are quite satisfied that no eligible patient is refused admission to a Sydney hospital on the ground that he is recommended by a medical man who is not recognised by the N.S.W. Branch of the British Medical Association.

Diphtheria Ward for the Brisbane Children's Hospital.—The appeal put forth on October 20th last by the Brisbane *Courier* for a sum of £1000 to provide a diphtheria ward at the Children's Hospital has borne good fruit. It is hoped that the sum required will have all been subscribed by February 20th, just four months from the date of publication of the appeal. The subscriptions have come in at times slowly, steadily, and now are within reach of the £1000 which will enable the committee of the hospital to enter upon its building contracts.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales—Council Meeting.

THE Council met at the Association rooms on Tuesday, January 22nd, 1907. Present: Drs. Pockley, Beeston, Crago, Hinder, Rennie, Clarence Read, Brady, Dick, Abbott, Worrall, MacCormick, Todd.

The minutes of the previous meeting were read and confirmed.

The following members were elected:—Dr. Eric Pockley, Summer Hill; Dr. H. Z. Stephens, Casino.

The PRESIDENT reported that the conference with the Friendly Societies' Association had been held and had discussed the whole of the model lodge agreement, with the exception of the wage limit, which was postponed for a further meeting.

Dr. Lang, of Corowa, hon. secretary of the Border Medical Association, wrote asking that the name of a local practitioner be removed from the confidential list.

Resolved—"That the medical practitioner's name be removed from the confidential list at the request of the Border Medical Association."

Letter from Dr. Todd with reference to the order of business of the meetings of the Branch, and submitting draft rules. Resolved—"That the rules as proposed by Dr. Todd be approved."—

General Meetings: Motions without Notice.—1. "At ordinary general meetings, urgent matters relating to medical ethics which have arisen too recently to allow of their being included in the agenda paper of the meeting accompanying the notice of the meeting, issued to the members, may be introduced on motion, on the ground of urgency, provided that (a) whenever at such meeting a member desires to introduce without notice an urgent matter relating to medical ethics arising as aforesaid, he shall deliver to the chairman a copy in writing of the motion he desires to move, and shall advise the chairman of the ground on which he claims urgency for it; (b) the chairman shall thereafter, at a time during the meeting selected by him, not being later than 10 p.m., read the said motion to the meeting, explain its purport, and state the ground on which urgency has been claimed for it by the said member, and shall forthwith take the vote of the meeting on the following question, namely, 'whether or not the urgency of the matter is so great as not to admit of its being properly dealt with at a subsequent meeting.' If the urgency as aforesaid be affirmed by a majority of not less than four-fifths of the members present in person, the said member shall be allowed to introduce the said matter." 2. "No complaint, or motion founded thereon, of any alleged breach of so-called privilege of the Association or of any member thereof shall be allowed to be made without notice at an ordinary or extraordinary meeting of the Association."

Letter from Dr. Savage, hon. secretary, Eastern Suburbs Medical Association, enclosing resolutions on the question of wage limit as follows:—At a Council meeting of the Eastern Suburbs Medical Association it was resolved:—1. "That the Council of the New South Wales Branch, B.M.A., be asked to take immediate steps to secure for the members of the Association who are lodge practitioners a wage limit from members of the public who are medically attended by them at

contract rates." 2. "That the following suggestions be made: (a) That contract practice be limited to wage-earning members of the public; (b) that unmarried members of lodges without 'encumbrances' (*vide* par. 10 model lodge agreement) wage limit be £150 per annum; (c) that married persons' limit be £200 per annum; (d) that lodge members with encumbrances limit be £250 per annum; (e) that these resolutions come into force on July 1st, 1907; (f) that these resolutions be not retrospective, but apply to members joining on or after July 1st, 1907; (g) that as soon as any member (who joins on or after July 1st, 1907) has an income over the stated limit he shall cease to receive medical benefits." Received.

Letter from Mr. G. T. Clarke with reference to the continuation of the conference. Received.

Letter from Dr. J. J. Holland with reference to lodge agreement at New Lambton. Matter left with Dr. Beeston to be dealt with.

Letter from Dr. Rutherford, of Casino, *re* model lodge agreement. Received.

Letter from the Secretary External Affairs enclosing letter from the Governor-General of the Philippine Islands *re* Philippine Islands Medical Association's annual meeting. Received.

The plans of suggested alterations at Royal Society's rooms were submitted.

The HON. SECRETARY reported that he had made inquiry with reference to a site for association rooms.

Letter from the Medical Secretary of the Home Association with reference to the election of representatives.

Letter from Dr. Todd suggesting certain alterations in the resolution passed by the Branch on November 25th, 1898, with reference to meeting certain medical men. "That any medical man who has held or shall hold the position of medical officer to any society which has been or shall be declared by the Council to be inimical to the interests of the medical profession, or who shall have held any lodge at annual fees per member below those approved of by the local Medical Association of the district in which the lodge is situated, shall, except in such circumstances as the Council may decide to be exceptional, be ineligible for membership of the Association for a period to be determined by the Council not exceeding five years from the date of his ceasing to hold such appointment, and shall during such period as the Council may determine not be met in consultation by members of the Association." Resolved—"That the suggested amendment be adopted by the Council and submitted to the Branch."

Letter from Dr. Neumann, of Wilcannia, asking certain questions with reference to lodge practice.

Letter from Dr. Barton, of Narrabri, on the question of the model lodge agreement. Received.

Letter from Professor Allen, President of the Victorian Branch of B.M.A. Read.

Credit balances—General account, £618 5s 4d; *Gazette* account, £277 3s 4d.

Victorian Branch and Medical Society of Victoria.

A SPECIAL meeting was held in the hall of the Society, East Melbourne, on Wednesday, January 23rd, for the purpose of hearing the presidential addresses of the retiring Presidents, Dr. M. U. O'Sullivan and Dr. G. Cuscaden. Dr. Cuscaden, vice-president, occupied the chair.

In opening the meeting, the Chairman announced that the Council had met and had elected Dr. Henry Laurie as hon. assistant secretary and Dr. H. W.

Bryant as hon. assistant treasurer. They had also provisionally adopted the "Intercolonial Medical Journal" as the official organ of the combined societies and had elected Drs. J. F. Wilkinson, C. A. Altmann and W. B. Vance to represent the Association on the editorial staff.

Dr. O'SULLIVAN then delivered his presidential address. (See page 55.)

At the close of Dr. O'Sullivan's address, Dr. Cuscaden vacated the chair, which was then occupied by Dr. O'Sullivan.

Dr. CUSCADEN then delivered his address as retiring President of the British Medical Association. (See page 64.)

Dr. F. D. BIRD moved—That a hearty vote of thanks be accorded to Drs. O'Sullivan and Cuscaden for their most interesting and suggestive addresses.

The motion was briefly seconded by Dr. G. Rothwell Adam, and carried with acclamation.

REPORTS OF OTHER SOCIETIES.

Medical Defence Association of South Australia.

ANNUAL MEETING.

THE seventh annual meeting of the Medical Defence Association was held at the Adelaide University on Thursday, December 13th, at 8.30 p.m. Present: Dr. Hayward (president) in the chair; Drs. Soutar, Swift, Benham, A. E. Wigg, Harrold, Sweetapple, Lendon, Bonnin, Gunson, Todd, J. A. G. Hamilton, Morris, Poulton, Wilson, and Cavanagh-Mainwaring.

ANNUAL REPORT.

The Council of the South Australian Medical Defence Association have much pleasure in presenting to the members their seventh annual report. They are glad to report that many members have paid arrears of subscriptions, and that there are at present 67 members who have paid their subscription, as compared with only 37 last year. In addition, four new members have been elected for the ensuing year. No calls on the finances have occurred, and the Association is in a very good financial position, and confidently expect that at the end of 1907 the Association will have £500 in hand, and that consequently the subscription will be reduced for those members who have paid £5 5s in subscriptions. The Council wish again to point out that the entire onus of appointing office-bearers has been left to them, and would urge the members in future to take more interest in the affairs of the Association, and to nominate members for the different offices. Owing to the absence of the President from the State, the annual meeting has been postponed from the first to the second Thursday in December. In accordance with the direction of the members, the Council have removed the surplus funds from the Savings Bank and placed them at fixed deposit for two years in the Bank of New South Wales. Six meetings of the Council have been held during the year, and many important matters have been discussed, both as regards questions of public and private interest. In conjunction with a sub-committee of the British Medical Association, a sub-committee of the Council has sat and considered the framing of a new Medical Act. The result of the sittings has been forwarded to the members, and the suggestions are at present under consideration by the Chief Secretary. The question of the demand by parents for certificates of ill-health for children who are not fit to attend the State schools has been before the Council, and through an interview with

the Director-General of Education, it was learnt that such certificates were not harshly or unreasonably demanded, and that no injustice to the parent would ensue on the refusal of a medical practitioner to furnish such certificates. The question of payment for this work was also discussed, but though the justice of doing so was acknowledged, it was pointed out that the department was not in a position to do so. A deputation from the Council had interviewed the Chief Secretary with regard to the present unsatisfactory state of the death certificate, and he has promised to consider the amending of it in conjunction with the proposed new Medical Act. The Council have had correspondence with the Pharmaceutical Society with regard to the encroaching of chemists upon the domain of medicine and surgery, and it has been proposed that a discussion upon the question shall take place at the forthcoming Congress of Science to be held in January next. The question of the propriety of the insertion of particulars of lives and careers of medical men, during their lifetime, indiscriminately in books of general biographies of Australians, has been discussed in Council, and it has been decided to refer the matter to the annual meeting for an opinion. The question of the right of professors at the University in the Medical School to compete with private practitioners has been raised, and on reference to the authorities at the University it has been ascertained that there is nothing in the rules of the institution to prevent such practice. The Council have, however, endeavoured to insist upon the registration of such practitioners, and that they should conform to the ordinary etiquette of the profession in their practice, and hope that in any similar appointments in the future such permission will be withheld. The question of the propriety of medical practitioners giving to patients prescriptions in cipher, enclosed in sealed envelopes and directed to a particular chemist, was discussed in Council, and in their opinion such a practice is distinctly wrong, and against the best interests of the profession. It has been suggested that an attempt should be made to secure for income tax-payers in general the exemption granted in England on moneys paid for life insurance, and the question has been referred to the general meeting for consideration.

TREASURER'S STATEMENT FOR THE YEAR ENDING NOVEMBER 30TH, 1906.

	CR.	£	s.	d.
Balance in Savings Bank, Nov. 30, 1905 ..		365	18	1
Interest		8	1	0
65 Subscriptions		68	5	0
35 Subscriptions in arrears collected ..		36	15	0
Petty Cash		1	9	7
		£480	8	8
	DR.	£	s.	d.
Printing		4	8	3
Stamps		2	10	10
Exchange on Country Members' Cheques ..		0	3	6
Gratuity to Porter		0	5	0
On Fixed Deposit in Bank of New South Wales		200	0	0
Balance in Savings Bank		273	1	1
		£480	8	8

H. SWIFT, Hon. Treasurer.

Audited and found correct.

C. E. TODD, Acting Auditor.

November 30th, 1906.

Dr. W. R. C. MAINWARING, Hon. Sec.

The annual report was taken as read, and speaking on it, Dr. BENHAM brought up the question as to whether the patient had the right to retain a prescription given to him by a medical man and to use it indiscriminately, stating that, in his opinion, this ought not to be so, as seemed to be the law in England.

It was decided to refer the matter to the Council to ascertain the law here, and to endeavour to secure the rights of the prescriber to the prescription.

Dr. SWIFT, in moving the adoption of the balance-sheet, pointed out the propensity of country members to omit the exchange on their cheques, and also that the subscription was due on January 1st, and that delay on the part of the members to forward this subscription involved considerable extra work and expense.

It was decided that in the opinion of the Association it is inadvisable that biographies of its members should be published in works like the Cyclopædia of South Australia, but that if the editor of the publication desire any information with regard to the connection of medical men with associations or public offices, as distinguished from their private positions, the secretary be directed to furnish what information he could.

Dr. POULFON mentioned the fact that in England income tax was not paid on money paid for life insurance policies, and suggested that a like privilege might be obtained here. The question was referred to the Council.

Drs. MORRIS and HARROLD spoke on lodge matters, and mentioned several grievances, and it was resolved that the Council interview the lodge authorities and ask them to see if they could not be rectified.

Medico-Ethical and Medico-Legal.

A country practitioner forwards an advertisement appearing in a local newspaper, a copy of which is as follows:—"Notice. Dr. — has been appointed medical officer to the State Children's Relief Board in accordance with Regulation 17 of the S.C.R. Act.—A. W. GREEN, Boarding-out Officer." And asks the following questions:—1st. Is there any objection against one advertising one's own appointment to such a position? 2nd. Is it customary for State officers to insert such a notice? 3rd. If 2nd is correct, is it to the best interests of the profession that such notices are inserted?

*** 1. Yes. 2. No. We are informed that the doctor has been notified that such announcement was unauthorised by the department, and he was requested to at once withdraw the advertisement. 3. No. The universal ethical rules of the profession condemn all advertising of this nature. We have since learnt that the insertion of the above advertisement was owing to a mistake on the part of the editor of the newspaper, and that the doctor has apologised to the State Children's Relief Department for the unauthorised advertisement.

The Acute Mental Hospital in Melbourne.—

At Royal Park, Melbourne, Messrs. Swanson Bros. have a £60,000 contract in connection with the erection of the Acute Mental Hospital, which is being erected on a site near the Moonree Ponds Creek, formerly selected for the erection of the Inebriate Retreat. The building will be a two-story one, with three towers, and will probably take three years to complete.

OBITUARY.

DUNCAN MACGREGOR, M.A., M.B., Ch.M. (Edin.), 1870, Inspector of Mental Hospitals, New Zealand.

We briefly recorded last month the lamented death of Dr. Duncan Macgregor. Sir Robert Stout, Chancellor of the University of New Zealand, has written the following appreciation of the deceased:—"He was not only a great Greek and Latin scholar, but he was acquainted with English, German and French literature. His verbal memory was phenomenal. He could repeat hundreds of lines from the poetry of all these tongues, and he had a keen æsthetic sense. Coupled with these endowments—perhaps as a result of them—he had a wonderful picturesqueness of language, and could heap illustration upon illustration to emphasise his points. One regret of all who knew him is that in his life he wrote so little. That was owing entirely to his modesty. He thought he was deficient in expository power. The fact was that he had the power of explanation in a wonderful degree. In carrying on his public duties he was clear, decisive, and careless of pleasing Minister, Parliament, or public, if he thought his view was right. He had a high ideal of public duty, and anything like a political job got no assistance or countenance from him. There was another side to his character, and that was his kindness and his love. Many a patient have I heard speak of him in terms of endearment. He was also, as he himself said, a Highlander. He loved the mountains, and his greatest joy was wandering over them. He had not only an eye for the beauty of mountain scenery, but for the ever-changing clouds, the colour of the water in lake and bay, the sombre majesty of the bush; and he often saw with the eye of a vivid imagination what was never seen by the naked eye of man on land or sea. I have met no one equal to him in intellectual ability or with a higher ideal of truth and duty. The colony is the poorer for his passing away, and one of my deepest regrets is that I have not noted down many of his unique thoughts and observations on philosophical subjects. He, I say, was one of that bright company this sin-stained world can ill afford to lose."

JOHN ADOLPHUS LAING, M.D., M.S. (Edin.), of Auckland, N.Z.

Died on December 4th, 1906. He was a very popular and successful practitioner in Devonport and Auckland. He died after a lingering illness.

WILLIAMS, THOMAS OWEN, L. & L. Mid., R.C.P. (Edin.), L.F.P.S. (Glas.).

There recently died at Bangor, North Wales, Dr. Thomas Owen Williams, who was well known in Auckland, N.Z. He was at one time Medical Superintendent of the Thames Hospital, and then took up work in Auckland, until his health forced him to retire. He was on a visit to Great Britain when he died.

We regret to record the death of Dr. A. H. Swindley, which occurred at Perth Hospital last month. He was a member of the junior resident medical staff at the hospital, having gone over from Victoria to succeed Dr. Jameson only three weeks before his death. He was operated on for appendicitis. He was 28 years old.

REVIEW OF CURRENT MEDICAL LITERATURE.

OBSTETRICS AND GYNÆCOLOGY.

A Contribution on Pyelo-nephritis of Pregnancy.

Zickel (*Monats. für Geburts und Gynäkol.*, Bd. 23, Heft 6). Cases of pyelo-nephritis commencing at the end of pregnancy are of sufficient rarity to make the following case of interest:—The patient, aged 36, pregnant for second time, at about the end of eighth month. Admitted to hospital because labour pains had commenced, and the urine examination showed no abnormal constituents. For seven days labour pains continued every 15-30 minutes. No effect was produced by them, and the internal os did not open. Up to this time patient had been well, but now she had a rigor and temperature rose. The only objective symptom was pain in right lower abdomen, especially localised in right inguinal region. The next day there was another rigor; labour commenced and was finished in a few hours. During the day there was another rigor, and temperature rose to 104° F. This temperature kept up to about 104° F. for four days, and then rapidly fell and remained normal. On the fourth day post partum a catheterised specimen of urine contained albumen, pus, renal epithelium, hyaline and granular casts. The right kidney was found displaced so that its upper border could be felt beneath the ribs and markedly tender on pressure. Staphylococci and bacterious coli commune were found in the urine; no tubercle bacilli. On a milk diet and urotropin the temperature fell rapidly to normal, and recovery was uninterrupted. The interest of the case lies in the difficulty of diagnosis and the curious time of onset, so late in pregnancy. If the first rigor had occurred after labour instead of before, the diagnosis of puerperal sepsis would have been highly probable; but coming before labour had really commenced and before rupture of membranes, uterine infection was unlikely. On the other hand, the urine was absolutely normal seven days before the first rigor, and after this the symptoms did not coincide with the usual symptom complex of pyelo-nephritis. According to Opitz, acute pyelo-nephritis of pregnancy is easy to diagnose, the usual symptoms being micturition disturbance, pain in the kidney region, and a typical temperature curve, with morning remissions. The diagnosis at such a time of pregnancy is of much importance, because the treatment of pyelo-nephritis and of puerperal sepsis is so essentially different. As far as causation is concerned this case throws little light. The common explanation is that kinking of the ureter with nephroptosis in connection with pressure of a pregnant uterus in some way predisposes to infection.

Malignant and Benign Degeneration of Uterine Fibroids.

Winter (*Zeitschrift für Geburts und Gynäkol.*, 1906, Band 57, Heft 1). This valuable paper is divided into the following parts:—Fibroids and carcinoma, fibroids and sarcoma, total necrosis of fibroids, total necrosis of interstitial fibroids, and primary cystic softening (myxomatous degeneration).

1. *Fibroids and Carcinoma.*—Winter attempts to solve the question as to whether the presence of fibroids and carcinoma in the same uterus is an accidental occurrence or due to the fact that the two forms of new growth have some close connection with one another. Among 2331 cases of carcinoma of the

uterus, apart from fibroids, he finds 151 of carcinoma of body—i.e., 1 to 15 of carcinoma of cervix. Among 131 cases of carcinoma with fibroids there were 80 of carcinoma of body of uterus—i.e., 1 in 1.6 cases of carcinoma of cervix. The explanation of the greatly increased proportion of cases of carcinoma of body in association with fibroids is probably to be found in the hyperplasia of the endometrium brought about by the presence of the fibroid tumours. Gradual changes from an innocent to a malignant proliferation are well-known to occur in the endometrium of uteri which are free from fibroids. Among 1607 cases of fibroids were 20 of carcinoma of the body—i.e., 1.20 per cent. Winter has had 12 such cases under his own care. As regards diagnosis of carcinoma of body with fibroids, the most important symptom is bleeding after the menopause, the fibroids themselves being responsible for about one-third of the cases in which this symptom occurs. Another very important sign is pain of a kind not usually produced by fibroids. In 4 out of his 12 cases there was typical "Simpson's" pain. The occurrence of blood-stained or foetid discharge is also of importance.

Fibroids with Carcinoma of Cervix.—This combination is so common that comparatively few cases are reported, and nothing like complete statistics can be obtained. Among 1270 cases of fibroids were 25 of carcinoma of the cervix—i.e., 2 per cent. As there is not the slightest doubt that even in countries where carcinoma is most prevalent the frequency of occurrence of carcinoma of the cervix is not nearly so great as 2 per cent., there must be some connection between fibroids and this condition. Winter has collected 29 recorded cases of carcinoma of the stump left after supravaginal amputation of the uterus. Of these he considers that the cervix was certainly free from carcinoma at the time of the operation in 7. The mistake of overlooking carcinoma of the cervix of a fibroid uterus is not very rare. The author draws the following conclusions as regards "stump" carcinoma: (1) In the majority the carcinoma was present before operation; (2) carcinoma occurring later has no connection with the operation; (3) supravaginal hysterectomy need not be given up in favour of total extirpation on account of fear of "stump carcinoma."

2. *Fibroids and Sarcoma.*—Probably sarcomatous change may occur both in the intermuscular connective tissue and in the muscle cells themselves. Winter attempts to answer two questions: (1) How often does sarcomatous change occur, and in what variety of fibroids is it most common? Since adopting the plan of examining sections from all parts of fibroids he removes, he concludes that in about 4 per cent. of all cases there is sarcomatous degeneration. The change is least common in subperitoneal and most common in submucous fibroids. Nearly 9 per cent. of all submucous fibroids become sarcomatous. (2) How can sarcomatous degeneration be diagnosed? Among his own 27 cases, sarcoma was diagnosed clinically only once. An irregular, multitubular shape in a submucous fibroid ought to excite suspicion more than a change in the consistence. Microscopic examination of the stalk is very important. The diagnosis of sarcomatous change in interstitial fibroids may be impossible before operation. Rapid wasting, severe pain between the menstrual periods, and rapid increase in the size of the tumour after the menopause are the most important signs. Removal of a fibroid should not be based on the fear that it may become sarcomatous.

3. *Benign Degenerations.* due to (a) atrophic conditions, (b) infective processes, (c) acute nutritional disturbances—necrosis, (d) degeneration of intermus

cular connective tissue. Total necrosis is easily explained in cases of submucous tumours which develop a pedicle or become nipped by the external os or by the vulva. Pedunculated subperitoneal tumours may suffer from twisting of their pedicle in the same way as do ovarian tumours. Total necrosis of interstitial tumours is well worth further investigation. From a study of 17 cases of his own and of recorded cases of interstitial fibroids, Winter compares it to the process of maceration of dead fetuses in utero. The process begins in the centre, where the tissues may be found to be discoloured, while the peripheral parts are still more or less well nourished. In 9 out of his 17 cases labour or abortion seemed to play some part in the aetiology. It is a striking fact that in 6 out of these 9 cases the placenta had to be removed manually. Winter compares these cases to those in which necrosis follows mechanical damage due to curetting. In one of his cases there was evidence of disturbance of nutrition by tension of the uterus. In another there was thickening of the media and interior of the arteries. In a third case there was very marked endarteritis obliterans. Artificial narrowing of arteries due to administration of ergot is an occasional cause. The symptoms caused by total necrosis.—In 50 per cent. of his cases there was metrorrhagia, and in the same number there was what the author describes as a characteristic pain—i.e., spasmodic pain of a tearing, stabbing character in the tumour or its neighbourhood. The clinical picture in a case of total necrosis is that the patient after labour or abortion suffers from irregular, sometimes severe, hæmorrhages, associated with pains like those of labour, and later shows signs of auto-intoxication. Winter does not think that pan-hysterectomy is specially indicated as long as the tumour is still completely encapsuled.

*Primary cystic softening (myxomatous degeneration).—*This occurs most commonly in poorly-nourished fibroids, e.g., subperitoneal tumours with their pedicles and intra-ligamentary tumours. The age of the patient, and probably also the age of the tumour, are factors tending to produce this form of degeneration. The process begins either with muscle cells or in the inter-muscular connective tissue. In some cases the fluid is lymph, in others mucin. Oedema of fibroids, which to the naked eye resembles this condition, probably depends on obstructed venous return. *Symptoms.*—Severe bleeding the most important, probably accounted for by the abnormal size and fulness of the veins. There is pain felt in the tumour, usually a sense of pressure or feeling of tension. Disturbance of general health does not occur, a fact that distinguishes cases of cystic degeneration from those of total necrosis. The diagnosis is made from the feel of the tumour, which may be doughy or may resemble that of the pregnant uterus. There is sometimes pseudo-fluctuation. A tumour may be almost completely destroyed by cystic degeneration without increase in size. The indications for operation on a fibroid are not altered by the occurrence of cystic degeneration, i.e., the mere fact that cystic degeneration has occurred does not make hysterectomy necessary, but it is commonly accompanied by symptoms which must be looked on as indicating operation.

The Treatment of Dysmenorrhœa.

Jacoby (*Therapie der Gegenwart*, June, 1906). A distinction should always be made between dysmenorrhœa as a symptom and dysmenorrhœa as an idiopathic disease. When a distinct pathological

lesion is present, such as dislocation of the uterus, inflammatory processes in its neighbourhood, polypi or fibroids, then treatment is naturally directed to it. In the common form of idiopathic dysmenorrhœa internal remedies by anodynes are indicated. Of these the combination of potassium bromide with valerian and extract viburnum prunifolium has been the most popular, but its efficacy is doubtful. The writer calls attention to the success he has had in the treatment of idiopathic dysmenorrhœa by styptol, the phthalate of cotarnine, given in relatively large doses. Mohr's experiments on the pregnant uterus of the rabbit seem to show that styptol produces a distinct lowering of the irritability of the uterine nerves, so that its action in menstrual colic may be compared to that of opium in intestinal colic. Owing to its double sedative and hæmostatic properties it is especially indicated in painful and prolonged menstruation, but rather larger doses are required than when given for hæmorrhage alone, as its sedative action is chiefly due to the cotarnine, whilst both cotarnine and phthalic acid participate with hæmostatic action. Doses of at least 0.1 gramme should be given three times a day, and in severe cases of dysmenorrhœa no untoward symptoms will appear if the dose is increased to 0.15 gramme four or five times a day, and in any case it is well to begin administration several days before the onset of the period.

Chorea Gravidarum.

Martin (*Deutsch. Med. Wochenschrift*, No. 31, 1906). Notwithstanding an extensive experience of chorea gravidarum, Martin has only three times been driven to interrupt gestation on account of danger to the mother. None of his patients died. While he has been in Greifswald he has seen two cases of chorea recurring in successive pregnancies. In 1894 Buist collected all the cases recorded up to that date. They numbered 226, and of these there were only three in which the disease recurred in three pregnancies, and five in which it recurred in five pregnancies. Martin has been unable to find any further cases in the extensive literature of chorea which has been published since Buist's paper appeared. He accordingly details his two cases. The first case was that of a woman in whom there was no history of infantile chorea or chlorosis, and whose first pregnancy, at the age of 25, was unaccompanied by chorea. Four weeks before the termination of her second pregnancy, which occurred two years later, she was attacked by disturbance of speech, twitches in arms and legs, and disturbance of her general condition. Labour occurred spontaneously at term and was normal, and four days later all these symptoms had disappeared. She remained in good health for two years, and the same symptoms again appeared during the early months of the third pregnancy. This attack was rather more severe than the preceding one, but the symptoms passed off spontaneously after delivery. In the fourth pregnancy difficulty of speech appeared in the eighth month and was followed by twitches of the right arm. There was considerable wasting with loss of visual fixation. On admission the heart was found to be normal except for some roughness of the first aortic and pulmonary sounds. Arsenic, iron and bromides were administered. In 12 days 68 grams (over 2 oz.) of bromide of sodium, ammonium and magnesium had been given, and there was considerable improvement. Next day pains set in, and a normal labour followed. The choreic symptoms disappeared in four days, and the patient has since remained well.

The second patient had suffered from acute rheumatism when 17 years of age, chorea following the rheumatism. She recovered, but did not completely lose the ataxic movements. She married six years later, and during the first pregnancy the choreic movements diminished. She passed through her confinement naturally, and was quite well save for the movements. The second pregnancy followed soon after. During the second half of this pregnancy the movements considerably increased and were very intense when labour occurred at term. Soon after the commencement of the third pregnancy the chorea became very intense, and the patient was admitted in the 25th week. No benefit was derived from chloral and morphia, and the pregnancy was terminated artificially. This was done on account of endocarditis, which was increasing and threatening the mother's life. The fourth pregnancy commenced in August, 1905. From the seventh month the chorea became much worse, and she soon became extremely ill. She could not walk, could not feed herself, and the condition of the heart became threatening. Placed in bed and artificially fed, she was treated with increasing doses of bromides. The chorea improved, and no signs of intoxication were manifest. As soon as she became quieter the dose was lessened, and after 52 days' treatment the patient was able to get up. Labour commenced five weeks later, and the choreic movements increased rapidly. The forceps were applied. The mother improved, nursed the baby, and was discharged three weeks later almost free from ataxic movements. The heart was *in statu quo*. Martin considers that when the symptoms threaten the life of the mother premature labour should be induced, and in this way the choreic movements will certainly be controlled; but he thinks that when the pregnancy is far advanced medical treatment should first be tried. His experiences with bromides are such that he urges an attempt to deal with chorea by their administration. The older reports on the dangers of interrupting the pregnancy scarcely apply at the present time, since these bad results were due to the frequency of septic infection. If the uterus was to be emptied immediately he considers anterior colpo-hysterotomy to be the best method. As regards treatment by bromides, he advises giving bromide of sodium and bromide of ammonium in doses of two grams (30 grs.) and bromide of magnesium 4 grams (60 grs.). Iron and arsenic do well for mild cases, but he considers chloral and morphia do no good.

OPHTHALMOLOGY.

A new Eye Symptom in Graves' Disease.

At the April session of the Ophthalmological Section of the New York Academy of Medicine, Dr. H. Gifford read a paper with the above title. The symptom referred to is a marked difficulty experienced in attempting to evert the upper lids of some patients with Graves' disease. This is especially marked in the earlier stages of the disease, and disappears later on. It does not depend on the nervousness of the patients, for it is apparent when they are perfectly docile; nor upon the exophthalmos, for it may be absent with marked exophthalmos, or present when the latter is hardly noticeable. It probably depends upon a condition of hyper-excitability of the unstriated lid elevation of Müller; the cause of this, as of the excessive lachrymation which sometimes accompanies it, probably being an abnormal excitation of part of the sympathetic. This symptom may occur without the co-existence of Dalrymple's sign, or may be absent

when Dalrymple's sign is well marked. Its chief importance depends upon the aid which it gives in the diagnosis of incipient or doubtful cases. In the discussion of the paper, Dr. O. S. Bull stated he had observed Gifford's sign three times in the last year, and considered it of great service in the diagnosis of slight and unilateral cases. He agreed with Dr. Gifford's explanation, and was satisfied that it was a symptom of the disease. Dr. Wolff asked if when cocaine was instilled, which caused spasm of Müller's muscle, was the lid thereby made more difficult to evert? Dr. Schap-ringer explained that cocaine affected only the palpebral and not the orbital portion of the muscle; and Dr. Gifford, in reply, stated that he had never noticed that the lids were more difficult to evert after cocaine had been instilled, but he had referred entirely to the levator fibres in the orbital part of Müller's muscle.—*Knapp's Archives*.

Paralysis of movement upwards and downwards of the Eye.

Tödter (Hamburg) in the *Klinische Wochenschrift für Augenheilkunde* (August, 1906). While paralysis of the lateral movements of the globe is common, paralysis of vertical movements is very rare. Theoretically, a lesion causing the latter manifestation may be cortical, sub-cortical, nuclear, in the hypothetical supranuclear centre, about the corpora quadrigemina, or peripheral. First, the author dismisses cases in which other movements of the eyes are affected, whether this other symptom is or is not synchronous with the vertical defect, as being due to some affection of the third nerve nucleus; also he puts in a separate category those cases in which there is congenital defect of upward movement along with ptosis, for the lesion in these is generally peripheral. The particular affection with which Tödter deals is to be sharply differentiated from either of these forms. There must, we would suppose from analogy, be a cortical centre for this movement, yet no case is on record in which such a lesion has been verified post-mortem, and the results of experiments have not been satisfactory. Clinically, it is true, hysterical paralysis of upward and downward movement has been noted (though with a difference), and the same failure after a head injury with concomitant symptoms pointing to a cerebral situation. There are good grounds for postulating a supranuclear centre in the corpora quadrigemina, and if there were no such centre the lesion would have to damage the nuclei of the two elevators (or depressors) of each eye—a highly improbable occurrence. As a rule it is upward and downward movement that is paralysed; next most frequently paralysis of upward movements alone. Paralysis of downward movement alone has not been recorded. Clinical observations throw little light on the question of the inter-relation of movements of the globe and corpora quadrigemina. The symptoms of a lesion affecting the latter are said to be cerebral ataxia and paralysis of eye muscles, but even these are not necessarily present, and the case may be indistinguishable from cerebellar tumour.

The records of post-mortems in cases of isolated paralysis show that with one exception tumour implicating the corpora quadrigemina has been present, or pressure exercised upon their neighbourhood—especially by the pineal gland. In the exceptional case of Thomson the region seemed entirely unaffected. Close examination of the post-mortem records shows, however, that much reliance cannot be placed upon the localisation, for it is not possible to exclude pressure

effects (or "Fernwinking"). Moreover, there have been cases in which there was no such symptom, although the corpora quadrigemina were quite destroyed by tumour growth. Nor do experiments in animals do much to clear up the difficulty. But looking at the matter broadly, one is fairly justified clinically in assuming the presence of a lesion about the corpora quadrigemina in case of acquired isolated paralysis of upward or downward movement.

If the lesion were destructive of the centre in the corpora quadrigemina, inability to move in these directions would be absolute; when the lesion is above the association centre, as in the case of hysterical paralysis, the loss of movement is confined to the voluntary direct motions, while reflex movements are not interfered with. Thus in the hysterical cases the patient cannot move the eyes, say, downward, but if we cause the patient to fix a stationary object and then slowly raises the chin, the eyes will remain fixed upon the object—i.e., the reflex movements are not impeded. This is impossible in the true paralysis having its origin in the corpora quadrigemina.

Tödter records two cases, in both of which recovery took place—a very rare result. He has only found records of three other instances.

In Tödter's first case both eyes were affected. The eyes could not be moved up or down. Lateral movements and convergence were normal, so was vision and pupil reactions. He practically recovered in a few weeks, and three years later was quite well. The lesion was diagnosed as a small hæmorrhage implicating the fibres coming to the corpora quadrigemina, rather than the corpora themselves, since there was a difference between the voluntary and the reflex movements, inasmuch as when the patient was made to fix an object and his head then tipped back a slight degree of descent of the glance took place.

In the second case the left eye only was affected. In other respects the eyes and movements were quite normal. Downward movement was almost nil, upward movement quite impossible. Next day diplopia was quite gone and all movements were quite free. A year later the condition recurred as before. The day following the examination the patient died of pulmonary embolism. The whole of the nuclear region and of the corpora quadrigemina were examined with great care, but no hæmorrhage or changes of any kind could be found. The only suggestion is that of a soft embolus in one of the vessels of the corpora quadrigemina which had rapidly broken up and been carried away; but it would be strange if this had occurred twice and left no trace discernible on microscopic examination (though quite possible for a microscopic lesion to have been missed).

NEUROLOGY.

Cord Lesions in Chronic Alcoholism.

M. Nonne (*Monatschr f. Psychiat. u. Neurol.*, December, 1906) points out that the ataxy, the failure of the reflexes, the paresis, etc., occurring in alcoholics, were at first looked upon as being due to lesions of the cord. Then came the discovery of the peripheral neuritis; this caused the investigations into the condition of the spinal cord to be neglected. As a matter of fact, changes take place in almost any part of the cord—in the anterior horn cells, in the ventral and dorsal nerve roots, and in the white columns. The changes in the white columns are described as being diffuse by most writers, i.e., not sharply limited to any one or more systems. Further, there are reasons for supposing that the peripheral nerve lesions and the cord lesions are not connected as cause and effect, but are independent

lesions. Changes of the nerve cells and nerve fibres of the cerebrum and cerebellum have also been described. The blood-vessels of the central nervous system are diseased, and show fat globules in the adventitia, fatty degeneration of the intima, and red cells in the perivascular spaces.

Although the degeneration in the cord is not "systemic," yet most writers have found the dorsal columns chiefly affected, and sometimes also the lateral pyramidal tracts.

Nonne in a series of cases found the degenerations in nearly every case affecting the dorsal column and the lateral columns. He had opportunity for noting that the degenerations in these columns were built up by the fusion of a number of originally isolated foci of degeneration. The picture recalls the picture of spinal degeneration described by Lichtheim in cases of anæmia, and in fact Nonne found many of his cases showing marked anæmia, but the nervous symptoms appeared before the symptoms of anæmia.

Aphasia.

Broca's area is being subjected to assault, and von Monakow's name has to be added to the list of assaulters. Writing in the *Neurolog. Centrbl.*, Nov. 1906, he expresses the opinion that the more we analyse the appearances in cases of aphasia, and the more we investigate the local anatomical changes in the brains of such cases, the more difficult it becomes to arrive at a satisfactory explanation of the connection between the position of the tumour and the aphasic symptoms observed. The difficulties are such that even in regard to the rough localisation of the speech centre many important contradictory observations exist. He is impressed with the fact that, even if as a general rule the rough localisation is correct in the majority of cases, yet the number of cases in which it is incorrect is far greater than one thinks. He points out the large number of cases in which in spite of the increase in size of a tumour in the speech centre, the aphasic symptoms clear up, and other cases in which the aphasic symptoms develop and persist although the lesion lies outside the centre for speech. Then there are the paradoxical cases in which one gets sensory aphasia with a tumour in Broca's area, and motor aphasia when the lesion is in the temporal lobe. The difference in the disturbance of the intellect (weak-minded, failure of memory, loss of the power of orientation) by tumours situated in identical situations, is also striking. He concludes that from the material so far collected and from his own observations it is certain that the explanation which only takes into account the rupture of certain tracts is quite insufficient to meet the case; we must lay much greater weight than has hitherto been the case on the nature of the illness, its mode of onset, and on the accompanying circulatory mechanical and toxic factors. In any case, it is not reasonable to rest the diagnosis of the different sub-groups of aphasia (transcortical, subcortical, etc.) exclusively on the interruption of this or that fibre-bundle, as the followers of Wernicke strive to do.

Three inventions were shown to the members of the Board of Health in Melbourne last month and favourably spoken of. One is a strainer for water in aqueducts or rainwater from housetops; another a network screen placed in window openings which keeps out intruders, animate or inanimate, and by absorbing water helps to improve the atmosphere. The third is a safety lock facilitating exit from buildings.

MEDICAL MISCELLANY.

In a telegraphic report from the expedition sent to Brazil by the Liverpool School of Tropical Medicine, for the purpose of investigating the yellow fever question, it is announced that the workers of the commission have been successful in proving that chimpanzees can be infected with yellow fever through the intervention of the *stegomyia* mosquito.

During a recent congress on leprosy held at Buenos Ayres, it was stated that in the province of Cordoba alone there were 60 cases of leprosy, 42 of which were in the town of Cordoba itself. The theory that the mosquito is a transmitting agent of the disease was also promulgated.

The Health Department (New York) records for the second quarter of the year show that of 965 deaths occurring during April, May and June, only 11 were caused by automobiles accidents, while 68 persons were killed as the result of being run over by or thrown from horse-drawn vehicles.

A prize of 500 dollars is offered by the Association for the Study of Epilepsy for the best essay on the etiology of epilepsy, the conditions of award being as follows:—All essays submitted must be in English, and must not contain more than 15,000 words. Essays must be in the possession of Dr. W. P. Spratling at Sonyea, New York, not later than September 1st, 1907. The name of the person submitting the essay must not appear on the same, but be kept in a sealed envelope on which is written a motto, which motto should also appear at the top of the first page of the essay. The essays will be judged by a committee of three, and announcement of the award will be made at the November, 1907, meeting of the Association. The Association will not feel bound to award the prize should no essay submitted be deemed of sufficient value to merit it.

Dr. Holle, Professor of Bacteriology in the University of Berne, Switzerland, has announced that he has been able to produce a curative serum for use in cases of cerebro-spinal meningitis.

A new method for the analysis of milk, devised by Dr. T. R. Boggs, and in use in the Johns Hopkins Hospital, is announced. It is claimed that by this method the proteids are estimated to within 0.3 per cent. "Diluted milk is precipitated with phosphotungstic acid in hydrochloric acid and the volume of the precipitate is read off in the ordinary Esbach albuminometer."

The St. Louis post office has notified the city bacteriologist that in future cultures of diphtheria, typhoid and tuberculosis germs will not be accepted for transmission by mail.

An anthrax investigation board in the manufacturing town of Bradford, England, where most of the cases occur, has issued an annual report, which is far from encouraging. A temperature of 300° F. (dry heat) must be maintained for three hours to kill anthrax spores. Such a temperature would destroy hair used for manufacturing purposes.

The term "assistant" is distasteful to many medical men. The benevolent and diplomatic principal would speak of his "colleague." A well-intentioned old lady,

on being asked whether she had seen her doctor, replied: "No, but he has promised to send his accomplice." How would associate do?

W. S. Fullerton, St. Paul, in the journal of the Minnesota State Medical Association, says that if surgery were taught in the dilettante way that *materia medica* is in too many of our medical colleges, surgical cases would be to a great extent in the hands of the instrument makers, who would be instructing the surgeon through their commercial travellers, as the medicine houses are attempting to do with the general practitioner.

L. Sexton, New Orleans, in discussing the treatment of pulmonary tuberculosis, stated that if lung gymnastics were practised by deep breathing for a limited space of time, three or four times daily, the lung tissue would be developed as is the right arm of a blacksmith.

The Coroners' Association of Illinois at the next session of the Legislature will enter opposition to the use of embalming fluids containing strychnine and arsenic, as the use of these drugs has, it is claimed, on many occasions interfered with the determination of the cause of death.

The authorities at the naval dockyard at Malta have issued a circular calling attention to the researches of the Mediterranean Fever Commission. It has been found that the milk of both cows and goats contains the fever germs in large numbers. People are advised to abstain from the use of fresh milk and to use the canned variety. The military authorities recently forbade the introduction of fresh milk into barracks, with the result that there was a remarkable diminution in the number of fever cases among the troops. A similar result has been obtained in the naval hospital, where goats' milk has been entirely tabooed.

Mainly by the efforts of the various local medical societies, 48 irregulars in Germany were condemned to imprisonment or fined during the fiscal year 1905-1906. The local medical society, usually acting according to general instructions from the National Anti-Quackery Society, called the attention of the police to the way in which the regulations were being defied. No. 16 was a magnetopath and hypnotist, formerly a roofer; he was condemned to a term of a year and a half, on account of immoral practices. No. 24 was another magnetopath, with a record of numerous previous sentences. He received six months' imprisonment for a death resulting from over confidence in his shirt of cotton, batting and magnetised water. No. 12 was a naturopath, who treated corneal ulcer with almond oil until the sight of the eye was lost; penalty a year's imprisonment—his tenth sentence. At Aachen, a former scissors grinder, who made a specialty of female affections, treating them with worthless drugs, received 18 months and 3½ years in a penitentiary and a fine of \$250. A former factory hand treated patients "according to the seventh book of Moses" for a consideration of \$10. In cases of cancer of the tongue he applied a living crab to the region, "cancer" being the Latin term for crab, and the German word "krebs" meaning both cancer and crab.

The incomes of physicians in England have decreased 25 per cent. during the last three years, according to recent statistics.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

*Birthday Honours—King Edward's Hospital Fund—
Sleeping Sickness—The Royal Society's Medals—
The Bradshaw Lecture—The Increase of Insanity.*

The following members of the medical profession find places in the Birthday Honours List issued on November 9th:—To be Knights: Sir W. John Tweedy, ex-President of the Royal College of Surgeons of England; Emeritus Professor of Ophthalmological Surgery and Medicine at University College, London, and the Royal London Ophthalmic Hospital. Sir John Byers, Professor of Midwifery and Diseases of Women in Queen's College, Belfast; ex-President of the Ulster Medical Society; Physician to the Royal Victoria Hospital and to the Maternity Hospital, Belfast. Sir Rupert Boyce, Holt Professor of Pathology in the University of Liverpool; Dean of the Liverpool School of Tropical Medicine; Fellow of the Royal Society. Sir Charles Hutchinson, late Member of Parliament for the Rye Division of Essex. To be Companions of the Bath: Mr. Thomas J. Stafford, F.R.C.S., Ireland, Medical Commissioner on the Irish Local Government Board. To be Companions of St. Michael and St. George: Mr. Sydney W. Thompson, F.R.C.S., F.R.C.P., Edin., Principal Medical Officer of Northern Nigeria; Mr. Wilfred T. Grenfell, M.R.V.S., Eng., Superintendent of the Royal National Mission to Deep Sea Fishermen. To be Knight Commander of the Royal Victorian Order: Sir Alfred Fripp, C.B., C.V.O., Surgeon-in-Ordinary to the King. To be a Member of the Fourth Class of the Royal Victorian Order: Mr. Wm. Maurice Abbot Anderson, M.B., B.S., Durh.; M.R.C.S., Eng., Surgeon to the Princess Royal. Mr. P. Michelli, Secretary of the Seamen's Hospital Society, has also been nominated to the C.M.G., in recognition of his long services to the Society for which he acts and to the great cause of charity.

The general council of King Edward's Hospital Fund for London met on December 17th at Marlborough House, for the purpose of awarding grants for the present year to the hospitals and convalescent homes. The Prince of Wales was in the chair, and towards the close of the proceedings expressed the King's congratulations on the results of the work in the past year. Lord Rothschild reported that the amount received by the Fund to December 12, after payment of expenses, was £89,915, and in addition legacies to the amount of £25,000 had been declared but not paid. Sir Henry Burdett reported that the contribution from the League of Mercy would be £18,000, and said that the home counties had shown a great advance, and that the four counties under the presidency of Princess Victoria of Schleswig-Holstein had sent the largest contribution from any president of the League. Sir W. S. Church (chairman of the Hospitals Distribution Committee) read the committee's report, which showed that £110,000 was placed in their hands for distribution, as against £100,000 in 1905. The number of hospitals applying for grants was 105, against 106 last year, five having fallen out and four new applications having been received. The City Orthopædic Hospital had agreed to amalgamate with the Royal National Orthopædic Hospital, and the arrangements were being carried out. Two hundred and fifty pounds voted conditionally last year to the City Orthopædic Hospital

remained in hand, and to this the committee had added £250, so that the assets of the hospital to be pooled on amalgamation would be increased by £500. In regard to the throat, nose, and ear hospitals, the committee were informed that the negotiations for amalgamation were proceeding. The Prince of Wales moved the adoption of the report and awards. In the course of his remarks His Royal Highness said: "I have, with the sanction of the King, determined to apply to Parliament for a short Act to incorporate the fund, and to place its administration upon a strictly legal basis. I much regret that, owing to the shortness of time at our disposal before the bill had to be lodged, which happens to be this very day, and to avoid losing a whole year, the bill could not be submitted to you as I should naturally have desired. Copies are now before you, and I trust that it will meet with your entire support and approval. I am sorry that time did not admit of my consulting you gentlemen as a whole, but I had the assistance and the advice of those who are most closely connected with the matter, and I appointed a committee to confer with those responsible for the drafting of the bill. As soon as we obtain our necessary statutory powers, it may be advisable to consider the constitution of the council and of the committees, and take steps to ensure that their respective duties and responsibilities are more closely defined than they have hitherto been." His Royal Highness pleaded for more support from annual subscribers of small sums; complimented the hospitals on the economics many of them had effected during the year; and in conclusion expressed his gratitude to all the honorary officials of the Fund and those who had served on the council and committees.

According to a Reuter telegram from Berlin, the "Lokalanzeiger" has obtained information that Professor Koch's expedition for the investigation of sleeping sickness is now in the Sesse Islands, in the north-west of Lake Victoria Nyanza. The expedition is divided into two parts. Professor Koch is with the majority of the doctors at the British Mission Station, in the Sesse Islands, while Professor Beck, with another doctor, is at Bumangi, at the French Mission. As soon as the object of the expedition became known, victims of the disease came daily in hundreds from the adjoining small islands, and even from the distant mainland. There are now from 300 to 400 awaiting treatment, some in the last stage of exhaustion. They were carried in cloths, nets and other primitive contrivances. The doctors work without ceasing from six in the morning till six in the evening. Some particularly interesting cases have been photographed, but in many instances the patients sank into the fatal sleep before the camera. It was reported early in December that a method had been discovered by the distinguished professor for combating the ravages of the trypanosomes by means of a serum, called Atoxyl, and from the accounts which are to hand it seems likely that Dr. Koch has added another to his many valuable scientific discoveries. Sleeping sickness has caused serious ravages in British Uganda, German East Africa, and the Congo Free State, and has depopulated large areas round Lake Victoria Nyanza. The prevalence of the disease has made life almost impossible in many districts, and has proved an insurmountable obstacle to trade development in many directions.

The Royal Society's medals were this year adjudicated by the president and council as follows:—Copley

Medal to Professor Elias Metchnikoff, for the importance of his work in zoology and in pathology. The Rumford Medal to Professor Hugh Longbourne Callendar for his experimental work on heat. Royal Medal to Professor Alfred George Greenhill, for his contributions to mathematics. Royal Medal to Dr. Dukinfield Henry Scott, for his investigations and discoveries in connection with the structure and relationships of fossil plants. Davy Medal to Professor Rudolf Fitting, for his investigations in chemistry. Darwin Medal to Professor de Vries, on the ground of the significance and extent of his experimental investigations in heredity and variation. Hughes Medal to Mrs. W. E. Ayrton, for her experimental investigations on the electric arc, and also upon sand ripples. The King was pleased to approve of the award of the Royal medals, which were as usual presented at the anniversary meeting on St. Andrew's Day.

The Bradshaw Lecture was delivered on 12th December at the Royal College of Surgeons by Dr. Edmund Owen, vice-president of the College, and consulting surgeon to St. Mary's Hospital. Dr. Owen chose for the title of his oration, "Cancer: Its treatment by modern methods." He left little room for doubt as to his personal opinion, for at the outset of his remarks he dogmatically and bluntly stated that, "In the present state of medical and surgical knowledge and experience, the only way in which the cure of a cancer can be obtained is by its prompt and thorough removal by operation." Mr. Owen thought that the public had the idea that somewhere in the invisible spectrum, beyond the X rays, they were to find certain "rays of hope," and to these they clung with increasing tenacity when they learned from the operating surgeon that, even if he were allowed to deal with a cancerous growth by a free cutting operation, he still was unable to promise a cure. And, unfortunately, no operator could ever be justified in making such a promise. Surgery must not go in advance of facts, or she would assuredly be overtaken and tripped up, as she had learnt from sad experience. At present it was beyond her power to promise to cure cancer, whether by a cutting operation, by X rays, by Finzen's light, or by any drug or nostrum injected into the blood, taken internally, or applied locally. Treatment was, unfortunately, not the same thing as cure, and the most effectual treatment for cancer—no matter how small it might be—was still removal by the knife. Dr. Owen referred in high terms to the Cancer Research Fund, as to which he could assure the public that they were at all times ready to make impartial investigation of any claims to the discovery of a cure. He concluded by saying that it was disheartening to be compelled to confess that no certain cure for cancer had as yet been found, and that so far as was known searchers were not yet upon the obvious track of one. But such was the fact; and it was only right that the public, who, equally with the profession, were interested in the long-wished-for discovery being made, should know just how matters stood. The public might be assured of this, that if a cure were known, those who were strenuously working at the subject would be in immediate possession of it.

At a meeting of the Royal Commission on the Care and Control of the Feeble-minded held early in December, Sir James Crichton Browne, who has held the office of Lord Chancellor's visitor in lunacy for thirty years, gave important evidence. He said that the addition of the Chancery visitors to the Board of Commissioners in Lunacy would not afford to the members of that board that assistance and relief of which they were known to be urgently in need. In

regard to any such proposal of amalgamation, he felt bound to deprecate a change which would mean a sacrifice of practical efficiency to mere doctrinaire speculation. The Commissioners in Lunacy had by vigilant supervision and steady pressure succeeded in abolishing the flagrant abuses that existed in asylums, and the gross cruelties to which the insane were subjected at the time when the Commission was created under Lord Shaftesbury in 1845, and the change wrought in asylums had been in some degree analogous to that wrought in hospitals by antiseptic surgery. Old horrors had disappeared, suffering had been enormously diminished, a sense of security had been diffused, and the prejudice against asylums had abated. He should regard it as a public calamity and a grievous wrong to the insane were the jurisdiction of the commissioners withdrawn or interfered with. The commissioners were overburdened with work, and it was inevitable that their work should go on increasing. The number of certified lunatics increased last year by 2150, and no one conversant with such matters would be surprised should the increase this year mount to a higher figure than ever. Notwithstanding the close attention bestowed on it for many years, it was still a moot question whether insanity was increasing out of proportion to population. He inclined to the opinion that it was, but thought that a solution of the problem must be approached by new methods. Insanity was not one disease well defined, but a group of diseases with very nebulous margins, and it might be that the mass was expanding in one direction and contracting in another. The explanations given for the portentous increase in the number of lunatics—they had more than trebled in 50 years—were not conclusive. Even if it could be shown that the increase in insanity was just in proportion to the increase of population, that would not be to him satisfactory, for our civilisation could not be the right sort if at every advance in it we were carrying our diseases and infirmities along with us. Insanity was largely a preventable and curable disease, and it seemed of paramount importance that there should be a strong, well organised department of the central government, not merely to protect those who suffered from it and to protect the public against them, but to elucidate its cause and conduct scientific investigations. The notion might be regarded as Utopian, but he looked forward to the time when the Board of Commissioners in Lunacy would be an integral part of a Board of Health presided over by a Cabinet Minister. That day was still remote, and in the meantime the Board of Commissioners was in urgent need of strengthening and reinforcement, and he suggested the following additions:—A paid chairman of distinguished position, two additional medical commissioners, a special statistical clerk, a permanently retained architect, and such additional clerical aid as might be deemed necessary.

South Australia.

(FROM OUR OWN CORRESPONDENT).

A Medico-Legal Case.

CONSIDERABLE interest has been felt in Adelaide during the past few weeks about the death of a young man under suspicious circumstances. The facts are briefly as follow:—Horace John Harvey, carpenter, married, aged 23 years, was in Adelaide last New Year's Eve with his mother and a male friend, at a place of amusement. After the performance his mother and friend went home, leaving him in Adelaide "to see the old year out." About 11.20 he called at a house:

Adelaide and was eating a meat pie when he entered, having in a bag some others, of which the inmates of the house partook. While there he vomited. He then went home to his mother's house in Kensington, where he arrived about 1 a.m. There he complained of being ill and sent for Dr. E. L. Borthwick. Before the arrival of Dr. B., about 1.30 a.m., Harvey vomited and was seized with convulsions. The convulsions continued to recur at short intervals, and he died at 3 a.m. Dr. Borthwick informed the police of the death, and refused to give a death certificate. When questioned next day by a constable, he said the symptoms pointed to poisoning. On the following evening Dr. B. telephoned to the local constable and informed him that the symptoms were suggestive of strychnine poisoning. The coroner, Dr. Ramsay Smith, then gave an order for burial, stating as the probable cause of death "cardiac failure." Harvey had been a member of a local Foresters' lodge since June, 1905, and Dr. Borthwick refused to give a certificate of death to the lodge. On January 2nd the lodge secretary and Dr. Borthwick interviewed the Chief Secretary about the matter. The coroner, who was present, offered to give the lodge secretary a duplicate of his burial order, as being all that was necessary for lodge purposes. Dr. Borthwick then laid the facts of the case before the Council of the Medical Defence Association of South Australia. The Council communicated with the Attorney-General on January 6th, pointing out that the coroner's action tended to cast a slur on Dr. B.'s reputation, and that, in the interests of the public, any case in which the symptoms gave cause for the suspicion of poisoning demanded the fullest investigation. They also suggested that possibly the coroner had not been placed in possession of all the facts. The Attorney-General replied, asking for any facts which might in their opinion not have been reported to the coroner, and further asking for a reply to the following questions:—1. Is Dr. B. of opinion that strychnine was the cause of death? 2. Is he of opinion that the symptoms were inconsistent with death from natural causes? In reply, Dr. Borthwick authorised the statement, "That in his opinion the cause of death was strychnine poisoning, and that the symptoms were inconsistent with death from natural causes." Subsequently an inquest was held, the body was exhumed, and a post-mortem examination and analysis made. The coroner cross-examined Dr. Borthwick severely at the inquest, and characterised as "a piece of impertinence" Dr. B.'s opinion that an inquest should be held in any case of death in which the medical attendant states that there is the slightest suspicion of poisoning. In his summing up the coroner made an attack on both Dr. Borthwick and the Medical Defence Association, going so far as to hint, according to the report in the daily press, that Dr. B. "was not a free agent in the matter," and that there was "another person that had made the coroner's neglect his own particular business and complaint." The letters written by the Medical Defence Association he characterised as "bluff." The coroner criticised adversely Dr. B.'s treatment of the case, and instructed the jury that "the convulsion which resulted in the death of Harvey was similar to those which deceased had suffered since his childhood, except that on former occasions he had managed to survive them." The coroner stated at the inquest that he had not been put in possession of Dr. B.'s opinion till January 10th, when he obtained the answers to the questions submitted by the Attorney-General. He, however, was present at the interview

of the lodge secretary and Dr. Borthwick with the Chief Secretary on January 2nd, when Dr. B.'s reasons for declining to give a certificate were, no doubt, fully stated. It would be interesting to know what is the legal and moral position of the lodge authorities. They have the coroner's certificate that death was due to heart failure, his subsequent direction to his jury that death resulted from a convulsion "similar to those which deceased had suffered from his childhood," and the declaration, signed by the deceased in June, 1905, without which he could not have obtained admission to the lodge, that he had never been subject to any fits. The fact that analysis did not reveal the presence of any strychnine in the organs examined does not at all affect the primary question as to the advisability of making the most searching inquiry into every case where there is ground for reasonable suspicion that death has been caused by poison. It also seems undesirable that any medical man who, at the expense of both time and trouble, is honestly doing what he considers his duty to the State, should be exposed in public to insults and annoyance from the very official who should encourage and support his efforts to ascertain the true facts about any suspicious case of death.

HOSPITALS AND FRIENDLY SOCIETIES.

(To the Editor of the Australasian Medical Gazette.)

Sir,—As an appendix to "The Outlook for the Profession in Australia" of last issue, December 20th, I beg to inform you that at the annual meeting the subscribers of the local hospital are contemplating to give *free* medical attendance for the whole year to any subscriber of ten shillings to the said institution, thus practically abolishing the private practice of a medical practitioner. Do you think that, if this resolution is carried, the subscribers would come under the Friendly Societies Act? Do you think that the Government would grant subsidy on such subscription? I would be very much obliged to you could you reply to the above questions.—I remain, sir, yours truly,

HOSPITAL MEDICAL OFFICER.

January 20th, 1907.

[We have referred these questions to Dr. R. H. Todd, barrister-at-law, who states that he does not consider that the subscribers referred to could be registered as a friendly society by virtue merely of having paid 10s to the hospital. He thinks it very unlikely that the Government would continue to subsidise this hospital under these circumstances.—EDITOR A.M.G.]

The Waterfall Sanatorium.—The site for the new sanatorium for consumptives at Waterfall, New South Wales, has been cleared, and the water supply provided. The Minister for Works has striven to hasten the proceedings, and tenders are to be called for the construction of the consumptives wing of the new establishment. It will be a permanent brick structure, designed to accommodate 240 persons. Until the complete building is put up, part of this wing will be used for administrative offices, so that the number of patients taken will be less than the full complement. The construction will necessarily be a slow process, because the material has mostly to be transported from Sydney, but it is expected that the wing will be ready for occupation before the end of the year.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, the Medical Officer of Health, reports for January, 1907:—The deaths registered in the metropolitan municipalities, exclusive of those in Gladesville and Callan Park Hospitals for the Insane, numbered 472. The annual death rate indicated by this figure is 10.19 per 1000 of the estimated mean population for the year, or, when corrected for the metropolitan proportion of deaths in benevolent and lunatic asylums, whether within or without the metropolis, 11.02 per 1000. The mortality from diarrhoeal diseases totalled 83. This figure included 71 deaths from enteritis and 12 from diarrhoea. The mortality from these diseases was exactly equal to that of last January, but below the quinquennial average for the month (95). Infectious diseases, other than diarrhoea, caused 21 deaths, of which influenza caused 2, whooping-cough 5, typhoid fever 6, erysipelas 2, puerperal fever 3 and scarlet fever and diphtheria one each. Twenty-eight deaths were ascribed to phthisis; this figure is below the monthly average. Cancer, with 40 deaths, was more fatal than usual, while Bright's disease, with 22 deaths, showed an average mortality. Diseases of the heart and blood-vessels were unusually fatal for January, and caused 71 deaths. Respiratory diseases were responsible for 31 deaths, of which bronchitis caused 8 and pneumonia 21. Deaths of infants numbered 117, which is equivalent to an infantile mortality rate of 98 per 1000 births. The most important causes of infantile mortality were:—Diarrhoea, 8; prematurity, 23; developmental diseases, 10; convulsions, 5; enteritis, 48. Notifications of infectious diseases numbered 193. Of scarlet fever 98 attacks, of diphtheria 54, and of typhoid fever 37 attacks were notified. Four cases of bubonic plague were also notified during the month. The incidence of typhoid fever was unusually small for January. It was less than half the quinquennial average for the month (81) and lower than the lowest record of any previous January. Within the city of Sydney 11 cases of pulmonary consumption were notified under the City Council's by-laws. Six dwellings were disinfected after occurrence in them of deaths from consumption and six dwellings after removal from them of living consumptives.

Newcastle Quarantine.—At a recent meeting of the Board of Health, a report was read from the port health officer at Newcastle, in which the defective state of the water supply to the quarantine station was pointed out, and the impossibility of taking in there more than about 30 persons, together with a communication from the Department of Public Works, in which the board was informed that the request for overhaul and rearrangement of the water supply must stand over indefinitely. The president pointed out that at any moment it might be necessary to quarantine at Newcastle some vessel with a crew of 70 or 80 persons, possibly many more, and that if this necessity arose it would be impossible to do anything but bring the crew to Sydney until the place had been furnished with a suitable supply of water. It was also mentioned that the stock of general furniture was not sufficient for the number last mentioned, and that if the water were supplied, still it would be impossible to use the station for a big vessel. Attention has been drawn to these

matters at various times during the past three or four years.

Board of Health.—At the weekly meeting of the Board of Health, held on January 29th, it was reported that during the week 563 rats and 279 mice were microscopically examined, and one was found to be plague-infected. During December, 169 samples of food were submitted for analysis, including 131 samples of milk. Fifteen samples of milk were found to be adulterated, and in nine cases the chemical evidence was such as would support prosecution if undertaken. In six instances it was directed that vendors be warned. Under section 55 of the Public Health Act, the board has power to recommend to the Minister that lands which in its opinion are unfit to be used for building purposes may be so proclaimed. The half-yearly report and a summary return of all such plots of land which now are the subject of proclamation, and which either may not be used at all for building purposes until accumulations of garbage and similar offensive matter have been removed, or unless the buildings erected upon them are constructed under special building precautions, such as, for instance, the concreting of all the surface enclosed by the walls of the buildings, was read. The number of allotments described was 42, all of which are situated in the city of Sydney or the suburbs thereof, with exception of one recently proclaimed at Albury. The fact that the board possesses the important power referred to is not very generally known to local authorities throughout the State, and it was directed therefore that attention should be drawn to it, and that local authorities should be requested to report any such lands which may lie within their districts, and which are likely in the near future to be used for building purposes, in order that the board may cause inspection of them to be made and decide whether it shall exercise its powers or not.

The Sydney Water Supply.—Dr. Stokes, Medical Officer for the Board of Water Supply and Sewerage, reports as follows:—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, January, 1907:—

Colour	14° Brown.
Clearness	Marked.
Odour	Nil.
Suspended matter	Very slight
Total solids	8.4000
Chlorine	3.2000
Free ammonia .. ..	.0005
Albuminoid ammonia .. ..	.0111
Nitrogen as nitrites .. ..	.0000
Nitrogen as nitrates .. ..	.0090
Oxygen absorbed in 15 minutes .. ..	.0419
Oxygen absorbed in 14 hours .. ..	.0741
Permanent hardness	1.8
Total	2.9

NOTE.—Parts by weight per 100,000.

2. Bacteriological examination of samples of water as it leaves the Catchment area, and from the canal, January, 1907:—

	Average No. of Bacteria per c.c. growing at		
	37° C.	Room tem.	Ratio.
Cataract River at Broughton's Pass	116	158	1 : 1.35
Outlet Nepean Tunnel	107	162	1 : 1.50
Canal at Kenny Hill	266	337	1 : 1.27

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during January, 1907 :—

Final Effluents from—	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification.		Incubator Test. Seven days at 37° C.
			Total Solids.	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Nitrogen as		Oxygen Ab- sorbed in		Albuminoid Ammonia.	Oxygen ab- sorbed in Four hours.	
							Nitrites	Nitrates	Three minutes	Four Hours.			
Chatswood ..	.. Slight	Nil	38.2	9.7	1.285	.170	.012	1.150	.179	.814	88.0	80.0	No decomposition
Folly Point..	.. Faint	Nil	61.0	10.6	2.702	.175	.006	.578	.160	.717	93.0	85.5	“ “
Balmoral ..	.. Slight	Nil	78.4	19.2	1.102	.227	.066	3.953	.181	.82.5	80.0	81.2	“ “

Victoria.

Board of Health.—At a recent meeting of the Board of Health the chairman (Dr. Norris) stated that five inspectors had been employed in the city and suburbs taking samples of milk, butter, sausages and, in a few instances, of cheese, to ascertain whether the Pure Food Act was being observed. The result had been the discovery of serious cases of adulteration and breaches of the regulation which required that goods containing preservatives should be labelled accordingly. In every instance in which samples of food had been taken a margin had been allowed. In one case the preservative discovered was 500 per cent. in excess of the amount allowed by the Act, while in other cases the excess was 200, nearly 100, 400 and 300 per cent. In some cases the Act had been infringed by the use of boric acid. In one case 300 per cent. too much sulphurous acid had been used. Mr. F. G. Wood said he was convinced that municipal councils were not the people to administer health laws. He moved that the board at an early date take into consideration the question of prosecuting where councils failed. The motion was agreed to, and it was decided to institute prosecutions in the cases mentioned by Dr. Norris. The chairman mentioned that the grocers had agreed to use for packages paper one-half the weight of that ordinarily employed. It would be genuine paper, not "loaded" with clay. Attention was directed by the chairman to an anonymous circular sent to the newspaper proprietors, intimating that if they did not back up the patent medicine makers in their opposition to the law, they would lose income from advertisements. The circular was the most sinister and audacious thing he had ever seen, and he was sorry to say it was British. He thought the average editor would treat it in the way it deserved to be treated, but as the board administered the Pure Food Act, he moved that he be authorised to send a circular to the papers conveying the actual facts of the case. Mr. J. Styles remarked that it would be a great benefit to Australia if no patent medicines were sent here. The motion was agreed to. Touching on the South Melbourne prosecutions, the chairman said the board's method of analysis had been approved of before Christmas. While it was advantageous to have a uniform method, it was false to say that accredited methods would give different results. The reason why the analysts differed in the South Melbourne tests was probably because of different interpretations placed on the analyses. The facts had to be interpreted.

Prevention of Contagious Diseases.—With a view to protecting the general public from contagious diseases, the Board of Health has taken action to compel all hawkers who display fruit and fish for sale on hand carts and barrows to adopt a regulation canopy to protect their wares from the sun, dust and flies. Plans of the proposed coverings have been circulated among municipal councils, and accompanying them is a letter asking co-operation in enforcing their general use. The covering completely envelops the articles displayed for sale, and has three windows, one at the rear and the other two in front, whilst a strong roller blind placed between the two front windows enables the vendor to obtain access to his goods when making a sale.

Meat Supervision Act.—A case under the Meat Supervision Act 1900 was heard at Caulfield Court on January 25th, when a butcher residing at East Brighton was charged with exposing for sale a fore-quarter of veal on which no brand had been stamped. Defendant's delivery cart was inspected in Dandenong-road, Caulfield, on November 24th, by Inspector Martin Roche, officer of the Board of Health. The inspector found that all the meat in the cart was branded with the exception of the fore quarter of veal. The cart was in charge of a driver, who informed the officer that the veal had been put in the cart by mistake. Mr. G. Moir, who appeared for the Board of Health, explained to the bench that the veal was not undersized nor unsound. Usually in such cases unbranded meat was undersized. Part of defendant's business was inside the meat area and part of it outside. Defendant had to sell only branded meat inside the area, but outside he could sell unbranded meat. For defendant, Mr. E. J. Corr contended that a butcher living outside the meat area could take unbranded meat into the meat area. It might be confiscated, but it was no offence. Secondly, his client had not "exposed" the meat for sale, nor had he sold it. Thirdly, the driver of the cart, and not the owner of the butchery business, was responsible, and should have been selected as the offender. After discussion, the Mayor announced that the bench was equally divided, and the case would be adjourned for 14 days.

Salad Oil.—The Food Standards Committee recently recommended the issue of a regulation under the Pure Foods Act defining salad oil as "any wholesome edible vegetable oil or mixture of wholesome edible vegetable oils." In fixing the standard it

was laid down that "salad oil shall be free from rancidity, and, if specially described by an accompanying label, it shall contain only the oil or oils specified." Mr. Prendergast, M.L.A., has forwarded to Dr. Norris a protest against its issue, except in a modified form. He contends that the intention was to prevent adulteration. Salad oil is accepted as olive oil, and the proposed definition allows any edible vegetable oil to be used. Adulterants are generally cheaper and harsher substances, which possibly are not detrimental to health, but find a market only because they are foisted on the public for a genuine article. Pure olive oil is produced in the State, and the olive will be grown more largely if it is made compulsory to trade inferior and harsher oils under their proper definitions. The proposed definition, it is urged, would alter the meaning of the words "salad oil," and thus would permanently reduce the quality of the article to the level of the adulterated substances, instead of forcing the adulterator to conform to a higher standard.

South Australia.

Enteric Fever at Snowtown.—At a recent meeting of the Central Board of Health the chairman (Dr. W. Ramsay Smith) presented a report on the serious nature of the recent outbreak of enteric fever at Snowtown. "From information gathered I find:—1. No evidence that the water supply or the milk supply has been the cause of the outbreak. 2. There is no evidence that any condition existing at the State school has caused or spread the disease. 3. The cause of its first occurrence is obscure, but I think there is little difficulty in explaining the spread of the disease once it obtained a footing in the township. 4. I do not find evidence that the cattle and saleyards have been directly concerned in the origin or spread of the disease. Two things, however, have to be considered in connection with these yards: (a) Like all other similar places they are the breeding grounds of numerous flies that invade the neighbouring houses, especially those to the leeward, and flies are a common means of carrying infection from faeces and contaminated matter to the food supplies in the same, and in the neighbouring houses; (b) the extreme offensiveness of these yards at times, especially after rain, compels the neighbours to close up all the doors and windows of their houses, and so to live in conditions that are detrimental to their well-being, and that make them more liable to infection when exposed to it. 5. The outstanding fact of this enquiry is that apart from one person seven of the sufferers have been living in the immediate neighbourhood of the yards; another lived there during the day, and the remaining sufferer probably caught the disease indirectly from her." The board considered the report and made the following recommendations:—1. That the general sanitation be undertaken by the Local Board as a really serious matter. 2. That the system of uncemented privy pits sunk in a calcareous subsoil in conjunction with underground watertanks is contrary to the express provisions of the Health Act, and should be abolished. 3. The adoption of a uniform system of dealing with closets and nightsoil. The dry earth closet system seems best adapted to the circumstances of the place. 4. The cattle and saleyards.—If the Local Board fail to deal with these that the Central Board will take action whenever offensiveness is proved to exist if the Local Board fails in its duty. 5. With reference to the school and schoolhouse.—The Education Department will renovate and disinfect these. The

board resolved to call on the Local Board to appoint an officer of health within six weeks from the date of notice.

East Torrens County Board of Health.—At a meeting held last month the Medical Officer of Health reported for the fortnight:—Five cases of notifiable disease; two of typhoid at Norwood; two diphtheria at Burnside, and one pulmonary tuberculosis at Campbelltown. The trained nurse inspector had visited all the cases, two of which were imported from other districts. The typhoid cases were removed to hospital; also one of the diphtheria cases, the other was isolated at home. Printed instructions had been left with them. Disinfection had been completed in one house after removal, and 22 visits paid to the cases under observation. In the St. Peters district one each typhoid and pulmonary tuberculosis had been notified, which had been visited and instructions left. One house had been disinfected after death, and eight visits paid. The inspector of cattle and dairies reported all the butchers, and 73 of the cowkeepers' premises in good sanitary condition, and 417 of the dairy cattle healthy. He had examined after slaughter 101 large cattle and 31 pigs, and found them all free from disease. Four samples of milk, after testing, were found satisfactory.

Tasmania.

Local Board of Health, Hobart.—At a meeting of the Local Board of Health on January 21st the board went into committee to consider applications for the position of Health Officer, *vice* Dr. Gerard Smith, resigned. Four applications were received. A ballot was taken, and resulted in the appointment of Dr. Gregory Sprott. The Mayor said their attention had been called through the press to the dog nuisance. A report prepared by the inspector showed that the number of dogs caught from January 5th to December 29th, 1906, was 453. Of that number 2 were released and 451 destroyed, making an average of 9 dogs caught per week. The whole of the dogs, except 2, were mangy or diseased mongrels. From December 1st to 29th, 1906, 51 dogs were caught and destroyed. Alderman Kerr said at the present time a number of old buildings were being demolished with the result that the old nests of rats were being disturbed, and some places were getting overrun with the rodents. He thought the question of recommending the destruction of rats should be seriously considered. The Mayor agreed that the work should not remain in abeyance any longer, as it was desirable that some steps should be taken to remedy the evil. Alderman Gould said he would bring the matter of rat destruction before the Health Committee.

Supervision of Milk Supply.—The following by-laws for prescribing precautions to be taken by cowkeepers, dairymen and purveyors of milk, and all other persons selling milk by retail, against infection or contamination have been gazetted:—1. Every cowkeeper, dairymen and purveyor of milk and person selling milk by retail, shall take all reasonable and proper precautions in and in connection with the storage and distribution of the milk, and otherwise, to prevent the exposure of the milk to any infection or contamination. 2. He shall not keep or deposit any milk intended for sale:—(a) In any room or place where it would be liable to become infected or contaminated by impure air, or by any offensive, noxious, or deleterious gas or substance, or by any noxious or injurious emanation, exhalation, or effluvium; or (b)

in any room used as a kitchen or living room; or (c) in any room or building or part of building communicating directly by door, window, or otherwise with any room used as a sleeping room, or in which there be any person suffering from an infectious or contagious disease, or which may have been used by any person suffering from any such disease, and may not have been properly disinfected to the satisfaction of the Health Department of the Local Authority, Hobart, as shown by a written certificate to that effect; or (d) in any room or building or part of a building in which there may be any direct inlet to any drain; or (e) in any room or place where raw meat, kerosene or other substances capable of tainting the milk with an unpleasant flavour are kept. 3. He shall not keep milk for sale, or cause or suffer such milk to be placed, in any vessel, receptacle, or utensil which is not thoroughly clean. 4. He shall cause every vessel, receptacle or utensil used by him for containing milk for sale to be thoroughly cleansed, by first thoroughly rinsing with cold water to remove all visible traces of milk, and afterwards with steam or clean boiling water on each occasion after it shall have been used, and also upon return to him after having been out of his possession, and shall cause every such vessel to be maintained in a constant state of cleanliness. 5. He shall not cause or suffer any cow belonging to him or under his care or control to be milked for the purpose of obtaining milk for sale, unless—(a) at the time of milking the udder and teats of such cow are thoroughly clean, and free from all sores and disease; and (b) the hands of the person milking such cow, also, are thoroughly clean and free from all infection and contamination. 6. He shall provide and use proper covers for protecting milk exposed for sale in open vessels from the access of flies and dust. 7. He shall cause all milk shops and milk stores used by him to be constantly maintained in a condition of thorough cleanliness. 8. In these by-laws "sale" shall mean sale for human consumption or for preparation for human consumption, and shall include barter and exchange. Penalties.—Any person who shall be convicted of a breach of these by-laws shall be liable to pay a penalty not exceeding five pounds for each offence, and to a penalty not exceeding one pound for every day during which such breach shall be committed or continued.

West Australia.

Adulterated Food.—Mr. H. Rowley, city analyst, has furnished the following report to the City Council regarding the quality of the food supply:—"My work during the past year has mainly been confined to milk and tinned foods. About 70 samples of milk have been analysed, and a great many of tinned meat, fish, and other foods, also impure icecreams and pickles. The tinned foods were found to be invariably bad or inferior from decomposition or abundance of preservatives and metallic contamination. I have no hesitation in stating that butter imported into this State from other States is not of the best, nor as would be shipped to Europe; and seeing that large quantities of this is shipped away from other States, I conclude that this State is one of the dumping grounds for a good deal of inferior material, such as worked butters. They are not of the quality and substance demanded, viz., butter made from the cream of cows' milk. Oleomargarine, fats and other oils are skilfully combined to make up a mixture which is sold as butter. None these substances or substitutes are probably injurious in themselves, but they do not contain the

essential properties of good butter. Preservatives also are freely used."

Queensland.

Dr. B. B. Ham, Commissioner for Public Health, reports for the four weeks ending February 9th:—**Brisbane.**—Plague in man: Remaining under treatment, 12; admitted during period, 18; died during period, 6; date of last case, February 4th, 1907; number of cases since January 1st, 1907, 20. Plague in rodents: Rats—Destroyed, 1939; examined, 1314; infected, 2. Mice—Destroyed, 165; examined, 116; infected, nil. Last infected rat, January 28th, 1907. Case 2, 1907: Male, *æ*t. 39 years, sailor, residing Ann-street, city. Attacked January 11th; notified and admitted to plague hospital on January 12th. Type, bubonic. The premises are in good order, and there are no evidences of rat infestation. The patient is a casual, and has been frequenting the wharves in search of work. Case 3: Male, *æ*t. 14 years, schoolboy, and assisting his father, a dairyman, residing at New Farm. Attacked January 15th; admitted plague hospital, January 16th; died on January 18th. Type, bubonic. Premises and dairy in particularly cleanly condition. The boy had been handling chaff and feed obtained from a produce store, city, where four plague-infected rats were obtained between December 20th and 23rd, 1906. Case 4: Male, *æ*t. 14 years, schoolboy, resident with his father, a general storekeeper and produce merchant, New Farm. Ill two days previous to admission to Children's Hospital on January 16th. A brother of this boy died in the Children's Hospital on January 13th with symptoms typical of cerebro-spinal meningitis. Case 5: Male, *æ*t. 13 years, schoolboy, residing with his parents at New Farm. Admitted to Children's Hospital on January 16th with cerebral symptoms, vomiting and abdominal pain. Case 6: Male, *æ*t. 12 years, schoolboy, residing with his parents at New Farm, opposite residence of case 4. Admitted to Children's Hospital on January 17th with cerebral symptoms and vomiting. Case 7: Male, *æ*t. 17 years, brother of case 6, and residing same place. Admitted to Children's Hospital on January 17th, with fever, femoral adenitis and delirium. In both cases 8 and 9 the bacteriological investigation was negative. The patients in cases 4 to 9 all come from one locality, and reside in close vicinity to one another. There is apparently one source of infection common to all. It was not until after admission to the Children's Hospital that patients in cases 4 to 7 developed glandular swellings and symptoms suggestive of plague. In these cases smear preparations from material obtained from the glands show bac. pestis. The guinea-pigs inoculated with material from cases 3, 4, 5, 6 and 7 respectively have died. In each case the bacteriological examination revealed the presence of bac. pestis. The cultures made from viscera of the guinea-pigs also gave positive results. Case 10: Male, *æ*t. 14 years, schoolboy, resided with his parents at New Farm, next door to Garnett's store, where previous cases have occurred. Attacked January 18th. Removed to hospital January 20th. Cervical gland. Type, bubonic. Last week patient noticed a cat bringing rats and mice from Garnett's store. The rats were dead and offensive. He had been playing with the cat which, he states, had numerous fleas on it. Patient died January 25th. Case 11: Female, *æ*t. 75 years; grandmother of case 10, resided at New Farm. Obtained groceries from Garnett's store. Dead rats noticed in yard previous to outbreak. Type, bubonic.

Attacked January 19th. Had been nursing patient (case 10). Died at her home, January 21st; patient was too ill for removal to hospital. Case 12: Male, *æ*t. 8 years, schoolboy, living with parents at New Farm, at rear of Garnett's premises. Attacked January 19th. This case was reported to the Department after death only. Post-mortem examination revealed presence of bac. pestis. Type, bubonic. Dead rats found in yard near premises. Case 13: Male, *æ*t. 8 years, schoolboy, cousin of patients 3 and 14, resided at New Farm. Attacked January 19th; removed to hospital January 20th. Type, bubonic. Was in constant association with cases 3 to 9. Case 14: Female, *æ*t. 9 years, sister of case 4, resided at New Farm. Attacked January 22nd; removed to hospital January 23rd. One of series of cases reported from infected area, and living at home with patients cases 4 and 13. Case 15: Male, *æ*t. 40 years; New Farm; father of patients cases 6 and 7; recently employed in Garnett's produce store. He found and burnt a dead rat in store recently, also two rats in an offensive condition. Attacked January 22nd; removed hospital, January 23rd. Case 16: The particulars of case 16 are as follow:—Female, *æ*t. 14 years, residing with her parents, New Farm, a sister of patients cases 6 and 7, and daughter of patient case 15. Attacked 20th January; type bubonic; removed hospital January 21st. Guinea-pig inoculated died on January 25th; bac. pestis present, cultures also positive. Case 17: Male, *æ*t. 49 years, member of the cleansing gang, Health Department, working in the infected area, New Farm; attacked January 24th; removed plague hospital January 26th. Case 18: Male, *æ*t. 42 years, member of the cleansing gang, working in the infected area, New Farm; attacked January 24th; removed plague hospital January 26th; died January 30th. Case 19: Male, *æ*t. 52 years, member of the cleansing gang working in the infected area, New Farm; attacked January 26th, removed to plague hospital January 28th. The above patients—17, 18 and 19, also patient 15—removed a large accumulation of putrefying animal and vegetable matter from beneath the general and fruit stores. All four patients developed secondary pulmonary phenomena, and probably contracted the disease from infected dust while engaged in the cleansing operations. During the period two of the patients have died in hospital. Case 20: Male, *æ*t. 20 years, residing at Gladstone-road, South Brisbane, and employed as a driver of a baker's cart, Ann-street, Valley. Attacked January 31st; removed hospital February 1st. Type, bubonic. Feed for horse obtained from Howes Bros. on December 28th, at time infected rats were found at latter store. Case 21: Female, *æ*t. 58 years, assistant to her husband, a sign painter, residing at Arcade-lane, City. Attacked January 30th; reported Health Department February 2nd; died at hospital February 4th. Type, bubonic. A plague-infected rat was found in vicinity of the patient's shop on December 18th, 1906. Case 22: Male, *æ*t. 50 years, residing Terrace-street, Valley, and working at a warehouse in the city. Plague-infected rats were obtained on latter premises last year. Attacked February 4th; removed hospital February 5th. Type, bubonic. Compulsory and voluntary evacuation of the entire infected locality, with disinfection of every house within the area, were measures adopted, the inhabitants of the locality not being allowed to return until the cleansing operations were complete. The whole of the soil in the vicinity of infected houses was thoroughly disinfected with sulphuric and carbolic acids. No further development has occurred among the persons living in the area.

Port Douglas.—Several cases of illness suspicious of plague having been reported from Port Douglas, situated on the coast between Cairns and Cooktown, a health officer with experience of plague was despatched to Port Douglas to investigate and report. Thirty-seven cases, one fatal, reported by health officer, Port Douglas. The cases under treatment number 25 whites and 7 Hindoos. The type of the disease is bubonic. The patients are being treated in hospital at Port Douglas, and are progressing favourably. All the patients (canecutters) come from separate camps of the Mosman district, 7 to 14 miles on road from the Mosman mill and township. Rats and fleas infested these camps. No common factor to the camps except food and produce distributed from two local stores. Mosman mill now closed. All infested camps have been evacuated and burnt; the mill hands have been quarantined for a period of five days on Port Douglas beach. No cases have occurred at Port Douglas or Mosman townships. No further cases have occurred at Port Douglas. The patients are now convalescent. The disease was of a mild character. A case of "Pestis ambulans" is reported by health officer at Mt. Molloy; the patient came from the Mosman district.

Plague in New South Wales.

SYDNEY.

In the *Gazette* of August 20th, 1906, the eighteenth case of plague at Sydney was mentioned, and it was pointed out that the disease was rather widespread among the rats for the time of year. It was also conjectured that if the epizootic should persist into the ensuing summer a more serious outbreak might be expected at the beginning of 1907 than had been witnessed for several years past. We regret now to be obliged to note that the epizootic did persist, and that the forecast seems likely to be verified. Plague rats continued to be found to the end of the year. The Darling Harbour area yielded most of them, and until the latter months they were confined to it; but they then began to be found further to the north—at Miller's Point and at the northern end of Macquarie-street, among the wool and hide stores there situated. The last plague rat of the year (No. 174), however, was found in the heart of the city, to the east of George-street, and this marked the beginning of spread of the infection to central parts of the city rather far inland of the Darling Harbour area which, as ever, continues to be the prime and constant source of infection. In the meantime two further cases occurred which, from the place where they were infected, furnished other evidence of such spread, for though no plague rats were discovered in connection with them, the premises at which the patients worked yielded many signs of recent infestation, and putrid carcasses in the numbers which unmistakably indicate some unusual cause of mortality. These cases were (19) R.G.F., a storeman, chiefly occupied in a rat-infested cellar on premises in George-street, attacked October 1st, and (20), J.J.J., another storeman, attacked December 22nd, employed within the Darling Harbour area.

The first occurrence in the present year was (1) B.M.E., male, a clerk employed near the Post Office, attacked January 7th; he was wholly employed in a ground floor office, which was in good order, but abundant evidence of infestation and of mortality among rats was got in the basement of the building. The next was discovery of three plague rats in a lane at the back of premises noted below as having yielded seven cases of plague. (2) W.D.S., plumber,

attacked January 17th, was employed in dismantling premises which had been used in connection with a large restaurant, but were then about to be given up; they abutted on the lane just referred to. His symptoms were indefinite, both clinically and bacteriologically, and, although he had been admitted to hospital on the 19th, no diagnosis of his case could be made until the 23rd. On that day (3) H.M., another plumber, employed at the same vacant premises, and occasionally at the restaurant itself, was attacked, and was at once seen to be suffering from plague. Immediately afterwards the case (4) of H.W., cook, employed at the restaurant, was reported from one of the metropolitan hospitals, and on January 26th attention was drawn to the case (8) of V.B., lift attendant at the restaurant, who had been sent by his employers for examination on returning to work after a short absence. On January 28th the cases of (9) G.E., a waitress, attacked 27th, of (10) L.F.C., a waitress, attacked 27th, and of (11) L.D., a waitress, attacked 25th January—all of whom were employed at the same restaurant—were notified. The premises were almost new, very well kept, and of high class; but they contained wainscottings, cased-in girders, and in a basement unnecessary and dangerous ceilings, behind which many carcasses were found; and it appeared that there had been an invasion of the block by infected rats which had been determined to these premises by the use to which they were put. Connected with them were the adjoining premises of a large drapery firm, and the case of (6) V.M.S., a shop girl, attacked January 21st, was notified on January 26th, after she had died. She was employed in a room adjoining the restaurant, with which there was connection by ratholes through the wall. Lastly, in connection with this block, the case of (12) H.F., male, a jeweller, was notified on January 30th, he having been attacked on the 26th.

In connection with another neighbourhood, four additional cases have now to be mentioned. The case of (7) Mrs. L., a Chinese, was notified January 26th, from a private hospital; attacked January 22nd. It was then learned that C.W., male, Chinese (unnumbered), buyer for a firm of produce and vegetable merchants, represented by Mrs. L.'s husband, had been taken suddenly ill on January 9th, and had died in the Campbell-street district (which is devoted to the produce trade) on the 13th, and that his wife (unnumbered) had been taken ill suddenly on the 15th, and had died in a private hospital on the 19th. It is understood that the medical men in attendance on these cases, although at the time they supposed death was caused by simple pneumonia, admit the probability that these were cases of primary plague pneumonia; and this probability is strengthened by the fact that Mrs. L. (see above) was the sister of Mrs. C.W., and was with her throughout her illness. Belonging to this group was also (5) the case of Ma Kong, who was attacked on January 24th, and who was apprehended by the police in the street on the 26th in a maniacal state. He was a labourer well known to the firm alluded to above, by whom it was admitted he had formerly been employed, though all recent knowledge of him was denied by them. Notwithstanding an energetic search, it was not until many days later that a plague-mouse was found in the neighbourhood in which the above-mentioned persons lived; and after inquiry it appeared most likely that C.W. had become infected at the wharves he frequented in the course of his business, had suffered from primary plague-pneumonia, and had communicated his disease to his wife, who had handed it on to her sister, Mrs. L.

It is conjectured that Ma Kong may either have had some concern in the removal of Mrs. L. to hospital, or else must have been altogether otherwise infected, for the Campbell-street district has not been recognised as an infected area notwithstanding the recent finding of the single carcass already mentioned.

The cases of (13) D. O.C., female, *æt.* 7, and of A.O.C., female, *æt.* 9, who lived at Petersham, were notified on February 7th. Both had been attacked suddenly on the 6th—D. at 7 a.m., A. at 3.30 p.m. while at school. A. had the disease in the septicæmic form, and died February 8th; D. in the bubonic form. The O.C. family was friendly with that of V.M.S. (case 6); they lived opposite to each other in the same street. V.M.S.'s case was notified only after she had died; her body was removed to the morgue for examination, and was not taken back to the dwelling. The latter was thoroughly disinfected on the day of notification; afterwards the room in which she had lain ill, as well as another which she had frequented during illness, were emptied by her father, the windows were set open and remained so, and some of her effects were also burned by him as a precaution. The consequence was that there was no longer room enough in the cottage for the S. family, and a sister of deceased's, aged 16 (who is in good health), went to the O.C.'s house to sleep, where she shared a bed with one of the two O.C. patients. These children also visited the S. cottage from time to time after V.M.S.'s death, but according to the latter's father probably did not enter her room. The interval between removal of V.M.S.'s body and attack of the two children was 11 days; that between its removal and their date of infection may have been only six days, but much more probably was eight days, and may have been somewhat longer still. Direct infection from V.M.S. is thus excluded. The S. family itself remained well. The neighbourhood was nearly three miles from the city and had been quite free from suspicion of infection. The children were said not to have been away from home except to school near by; the premises presented no signs of infestation with rats, but the O.C.'s cottage was badly infested with fleas (a seasonal phenomenon, see below), and the only plausible explanation of the infection of the children which has been suggested is that they happened to be bitten by fleas which had received the infection from V.M.S., who had the disease in the septicæmic form. Possibly the further investigation of the district which is now in progress may reveal some hitherto unsuspected source of infection. In the meantime it may be noted that the question how long an infected flea is competent to communicate plague has not yet been answered, but, it may be expected, will be discussed by the Plague Research Committee (India) in their further reports. Their first report, it will be remembered, merely placed beyond all doubt the competency of the flea to communicate plague from animal to animal, and did not touch on the conditions of such competency.

On February 8th the case of (15) M.M., female, *æt.* 26, waitress at a large hotel in the centre of the city, was notified. She had been attacked on February 6th. She lived on the premises, on the top floor, near the kitchens. A plague-rat had been taken there a week before her attack, and notwithstanding the search and cleansing which followed thereon, another was found after her case had occurred. The premises were infested and, as regards their administrative parts, were not kept with the care which the special circumstances rendered necessary.

The prevalence of fleas in Sydney is generally complained of, and the health authorities consider that

they are now much more abundant than has been the case for four past seasons.

KEMPSEY, MACLEAY RIVER.

At this town, which is in regular and frequent communication with Sydney by sea, but otherwise isolated, J.J.J.R., male, *æt.* 29, a labourer in a produce store, was suddenly attacked January 23rd. He was under the care of Dr. Woolnough, who had recently established himself in the town after a long term as senior resident medical officer at the Coast Hospital, Sydney, where he had acquired unusually good clinical knowledge of plague. The nature of the patient's employment had from the first kept plague in mind as a possible contingency, and yet his disease appeared to be but a simple lobar pneumonia until the evening of the 28th, when plague was diagnosed. He died on the 29th. (2) Mrs. McL., the wife of the proprietor of the produce store, and sister of J.J.J.R., whom she nursed throughout his illness, was attacked with primary plague pneumonia February 1st, and died on the 4th. (3) R. McL., *æt.* 10, daughter of the above, frequented the produce store; she was attacked January 29th, form septicæmic, and died February 12th. The two latter patients were removed to the hospital. (4) Nurse Gulliford, the matron, was attacked with primary plague pneumonia February 6th and died February 11th. The patient Mrs. McL. is said to have coughed in her face more than once, and it is thought that disregard of the precautions which were strictly enjoined upon her from the first contributed to her infection. All these cases have been bacteriologically established.

On the day the diagnosis of the first case became known, the Department of Public Health despatched a sanitary inspector who had been in charge of the outbreaks at Ulmarra and other northern towns during 1905, together with a trustworthy ratcatcher, to Kempsey. They took material with them, including serum and laboratory appliances, and were directed to report to Dr. Woolnough, who was placed in charge, on behalf of the Board of Health. This party was at the same time co-ordinated with the Town Council which, under the Mayor (Alderman Small), acted with great energy and public spirit, and very soon had cleansing gangs at work on the infected quarter of the town. Plague rats were detected by Dr. Woolnough among the carcasses submitted; they were found at some half-dozen different premises. It appeared, however, that the epizootic was not very widespread, and at the date of writing there is reason to hope that this outbreak may have been checked.

Health of Queensland.

From the annual report of the Commissioner of Public Health (Dr. B. Ham) we learn that, with the exceptions of diphtheria and typhoid fever, which still remain as prevalent as in former years, the year 1905 was characterised by the slight degree in which infectious diseases had incidence upon the population of the State.

Typhoid Fever.—Five hundred and six cases of typhoid fever were notified in the State in 1906, as against 588 cases in 1905. The notified attacks in the metropolitan area were 247, equivalent to an attack rate of 1.9 cases per 1000 persons. Thirty-four cases were reported in the Balonne Shire. As a result of the special investigation by the department into the probable cause of the outbreak, all cesspits were ordered to be discontinued, and the double pan sanitary

system installed within the town of St. George. The continued incidence of typhoid fever on the town of Charters Towers, and the Shire of Queenton, pointed to the existence of some local infective factor requiring investigation. The conditions found on inspection of the area were highly unsatisfactory, the sanitary circumstances of both the town and the shire showing a want of local supervision and control.

Phthisis.—The number of cases reported during the year in the metropolitan area was 148, as against 133 of last year. Seventy-seven deaths were reported. The operation of compulsory notification continues to be entirely favourable. No case of friction has arisen in any instance during the 339 visits paid by Staff Nurse Perry. In February last a request to the superintendents of the Jubilee and Diamantina hospitals, and to the medical superintendent, Dunwich Benevolent Asylum, to notify the department of every consumptive patient admitted to these institutions, in order to allow of the necessary disinfection of premises vacated by the inmate, was readily complied with.

Plague.—The incidence of bubonic plague on the metropolitan area from July 1st, 1905, to June 30th, 1906, was extremely slight, the number of human beings affected being only 8, of whom 4 died. No cases were reported until March 6th, 1906, and none after June 30th, 1906. Seven of the reported cases were males (1 Chinaman), of whom 4 died, the single female patient surviving. The last case of plague in human beings in Brisbane in 1905 was reported on June 14th. The last infected rat in 1905 was found June 23rd. The first case in man in 1906 was discovered on March 6th; the first plague-infected rat in 1906 on January 12th. The plague season of 1905-6 in Brisbane has been the shortest on record, and there can be little doubt that the immunity from plague during this period, and still at present being enjoyed, is the outcome of the constant and systematic destruction of rats. An amendment of the Health Act in the direction of the making of occupiers responsible for keeping their properties free from infestation with rats, as a preventive of plague, is urgently needed. Though no case of plague occurred in the metropolitan area until March 6th of this year, many "suspect" cases were investigated and negatived. One of these is worthy of remark. After an attack of what seemed influenza, the patient developed a large tense right femoral bubo with high fever and some delirium. The health officer to the department diagnosed "filariasis," and a dead worm was found in the blood. On July 4th, 1905, a fatal case of bubonic plague was reported from Ipswich. Forty-seven rats and three mice obtained from Ipswich were examined and found free from infection. Two mild cases were reported from Cairns during July, 1905. One patient, a man residing some four miles from the town, was employed as a ratcatcher. A fatal case of bubonic plague occurred at Townsville on August 4th, 1905. The patient, a boy, lived in a coal hulk moored at the jetty wharf. Several plague-infected rats were discovered at this wharf. During the month of September three further cases, one fatal, occurred at Townsville; and on October 15th an aboriginal admitted to hospital died of plague on 21st idem. A further fatal case admitted to hospital on October 19th died on the 21st of that month. In all, there were six cases and six deaths—a gross mortality of 100 per cent. Of 489 rats examined, 5 were found plague-infected. After an absence of six years, plague in epidemic form reappeared in Rockhampton in April, 1906. Four cases of bubonic plague were reported during the week ending April 12th, 1906. All four cases came from the one warehouse. There is good

reason to believe that the infection was imported by rats from vessels arriving at the town wharves. Four further cases were reported during the week ending April 21st. All four cases were connected with the warehouse mentioned above. In all, eight cases with four deaths occurred at this warehouse. Dead and diseased rats were found on the premises of this warehouse previous to and up to the date of the first case on April 5th. Dead rats were also found in a store adjacent to the warehouse. Three sporadic cases occurred early in May, one patient being a ratcatcher employed by the department. The last case was reported on May 13th. In all, there were 11 cases and 4 deaths. The total number of cases from July 1st, 1905, to June 30th, 1906, for the whole State was 28, of which 15 terminated fatally—a gross mortality of 53·5 per cent. Deducting the case of an aboriginal and a Chinese, both fatal, the corrected death-rate for whites was 50 per cent.

Leprosy.—Twenty-two cases of leprosy have been segregated, as compared with 19 cases of last year. All were males, two only being natives of Queensland.

Food.—Before any legal action can be taken in accordance with the provisions of the Health Act, it is necessary to examine the foodstuffs suspected, and the bulk of the work of inspection, collection of samples, examination, and prosecution falls on this department. With the small numerical staff available, it is impossible at the present time to keep in touch with places outside the metropolis. A second medical officer to the department is urgently required. As occasion offered this officer could visit the northern towns of the State, report upon the sanitary circumstances of the area of each local authority, and obtain samples of foodstuffs for examination in Brisbane. With regard to the metropolitan area, the work of inspection and examination of foodstuffs by the officers of the department continues to be conducted in a steady manner. All the bakers' and butchers' premises have been inspected, and there is a marked improvement noticeable in these establishments since last year. The majority of the butchers have met the wishes of the department with regard to the use of pickling needles, and in only a few isolated instances were brass needles found. Some 5 tons of foodstuffs have been seized, condemned as unfit for human consumption, and destroyed during the year. The arrangement made with the Grocers' Association works satisfactorily. Goods to which the department takes exception from time to time are withdrawn voluntarily from the market within a short period of notification to the secretary of the association. All stocks on the local market are returned by the vendors to the manufacturer or local agent, who is proceeded against, if necessary, by the department. In many cases the officers of the department have seized and destroyed the whole of the stocks exposed for sale. On the whole, the large bulk of foodstuffs manufactured and retailed in Brisbane are free from adulteration. What is really needed is inspection and examination at the port of entry—namely, the Customs—before delivery of imported goods to the consignee, and it is to be hoped that the Federal authorities will be enabled to take some action in this connection under the Commerce Act and Regulations. An attempt was made early in the year in certain quarters to upset the standard fixed by regulation under the Health Act of 3 per cent. of fatty solids (milk fats) in fresh milk. This percentage is in reality much smaller than the average quality of fat present in the milk supplies of Brisbane. A system of recording is being conducted

with the object of ascertaining, as exactly as possible, how rich the milk produced upon metropolitan farms actually is. The results so far indicate that milk produced from herds is much above the standard of 3 per cent. required by the regulation. Much correspondence has taken place of late between a certain concentrated milk company in one of the southern States and myself, relative to the standard under the Queensland Health Act for condensed (sweetened) milk. It is maintained that the regulation made by me in 1903—namely, "Condensed milk, or concentrated milk, shall contain not less than 10 per cent. butter fat"—is unworkable, and that the regulation in question should be amended to the effect "that sweetened condensed milk shall contain not less than 8·5 per cent. of butter fat, and unsweetened condensed milk not less than 8 per cent. of butter fat." In reply, it was pointed out that samples of condensed (sweetened) milk, made by the local manufacturers and tested here, have constantly given over 12 per cent. of butter fat. That several samples of one local company gave close on 15 per cent., and as Queensland was now getting a good supply of pure condensed milk, free from preservatives, containing over 10 per cent. butter fat, I quite failed to see why the standard should be lowered to 8·5 butter fat. The health authorities of New South Wales, Victoria, Queensland, Western Australia, and Tasmania are in favour of the 10 per cent. standard. On June 9th, Mr. Henderson, Government Analyst, reported:—"At present we have a good supply of milks over 10 per cent. butter fat. Representatives of two local manufacturers have interviewed me on this question, and each has requested that the standard be kept at 10 per cent. The agent for one of the largest importers of condensed milk also requested that the standard be kept up to 10 per cent."

The Hygienic Court.—The Hygienic Court at the recent National Show was but a practical demonstration, on a small scale, of what may be done to illustrate the growing popularity of the subject of hygiene and its bearing upon the practical well-being of the community, the individual, and the home. It was a means adopted to teach the public, by an interesting and attractive object lesson, the elementary principles of sanitary science and hygiene. It is with great pleasure that the department learns from the public press that "the Hygienic Court was one of the most interesting displays in the pavilion, and its value, from an educational standpoint, was almost incalculable." It is also gratifying to know that the exhibits were "full of interest, not only to the scientist and the medical expert, but also to the public."

REPORT OF THE GOVERNMENT BACTERIOLOGIST.

The total number of specimens received was 17,062. While there was a decrease in the number of rats and mice submitted, there was a considerable increase in the other kinds of specimens, which invariably take longer to examine. These latter include various human and animal diseases, internal and external parasites; samples of water, milk, meat, disinfectants, etc.

General pathological specimens.—The number of specimens of suspected malignant nature amounted to 101. The preparation of these specimens for examination involves a considerable amount of time and labour. The diagnoses of the various specimens are embraced in the following list:—Epithelioma, Carcinoma, Scirrhus-Carcinoma, Adeno-Carcinoma, Adenoma, Papillary Adenoma, Papilloma, Fibroma, Fasciculated Fibroma, Fibro-myoma, Fibro-myoxoma, Chronic Mastitis, Sarcoma (spindle-celled, large round-celled),

myeloid, melanotic, and alveolar), Tubercular Adenitis, and Granulation tissue.

General.—A large number of requests have been made for microscopic preparations showing the characters of various kinds of bacilli, notably plague, leprosy, tubercle, pyogenic organisms, etc.

Among other specimens of a miscellaneous character submitted, the following may be mentioned:—Pneumonia, actinomycosis, empyema, endocarditis, pseudo-tuberculosis, anthrax, gonorrhœa, tick-fever, hydatids, and abscess; also specimens of urine to be tested for albumen, sugar, blood, and chyle.

Plague.—There has been a slight decrease in the number of rats and mice received for examination, which may probably be accounted for by the continued use and general distribution of baits infected with virulent Danyasz bacilli. The number of rats and mice examined was 13,331 and 2308 respectively, of which only 38 rats were found infected. With regard to suspected human cases of plague, specimens of lymph, sputum, and viscera from 39 cases were examined by the various crucial tests employed. Eleven proved positive.

Tuberculosis.—Sputum: Of 459 specimens of expectoration examined, 160 contained tubercle bacilli. Urine: Of five samples submitted, three were positive. In these cases, owing to the presence of other acid-fast bacilli (the *Bac. Smeigma*), microscopical examinations alone cannot be relied upon, consequently the respective centrifuged deposits of each sample was injected into a guinea-pig, and in due course three of the animals became tubercular, thus proving the accuracy of this method of diagnosis.

Typhoid.—The appreciation of Widal's test for typhoid is made readily apparent by the large number of blood specimens submitted by the general and children's hospitals, and town and country medical practitioners. The results of several years' daily observation show that blood sent in capillary tubes is of little value, more especially during the summer months, owing to the great risks of contamination. The most satisfactory method is to smear a little blood from the patient's ear on a clean piece of notepaper. The name, age, sex, and duration of illness should always be given. This latter is most essential, for, as a rule, a reaction does not take place in genuine typhoid cases earlier than the commencement of the second week of illness; therefore, it is most advisable to submit specimens that are taken after the seventh day.

Diphtheria.—Of 199 specimens from suspected cases, mostly from the Children's Hospital, typical Klebs-Löffler bacilli were detected in 65. Specimens continue to be received even after convalescence, and the patient is not discharged until our report shows diphtheria bacilli to be absent.

Leprosy.—Specimens of serum, blood, and tissue from 24 suspected cases were examined bacteriologically. Of this number, 17 were found to contain the bacilli of leprosy growing characteristically in the form of groups or colonies within the tissue cells. In July last I commenced an investigation on the lines laid down by Dr. Rost, who had previously announced that he had succeeded in cultivating the bacilli of leprosy, and who had, further, from these cultures, prepared a material called Leprolin, which was alleged to possess curative properties when injected into patients afflicted with leprosy. I prepared large quantities in sterile tubes and flasks of the special media from beef broth, in accordance with Dr. Rost's for-

mula. I spent some time at the Stradbroke Island Lazarette inoculating these cultures from several of the leper patients. The culture media was then placed in the incubator, watched and examined for over six months, but I could find no evidence of development from the leprosy bacilli which were placed in the media.

Supply of pleuro-pneumonia virus.—Pleuro-pneumonia is not nearly so prevalent a disease, nor are the outbreaks so frequent now, as some 12 to 15 years ago. Nevertheless stockowners are keenly alive to the fact that it is a wise plan to have their cattle (especially when travelling long distances) protected against this highly contagious disease. During the past year 235 applications were received from persons throughout this and the neighbouring States for virus to inoculate 31,930 head of cattle, but owing to the difficulty experienced in obtaining supplies, only sufficient virus to treat 27,300 head could be supplied. This branch of the work, which is invaluable to the stockowners, the Department of Agriculture and the State generally, has been largely responsible for the prevention and wholesale spread of bovine tuberculosis, which was, prior to the establishment of the Institute, brought about through the indiscriminate inoculation of pleuro virus taken from an animal affected with generalised tuberculosis in a breaking down caesating condition.

Water and food examinations.—Supplies of water, milk, food, etc., were received from officers of the Health Department, Government medical officers, local authorities, and others. In 30 samples of water for quantitative and qualitative bacteriological examination, three were found to contain typhoid and coli bacilli, while 12 contained coli organisms alone. Several delicate tests have recently been introduced for the ready detection of the bacilli C.C. and other gas-producing organisms, and also for the diagnosis the typhoid bacilli. While the detection of typhoid bacilli is always attended with great difficulty, that of the coli is less so, principally on account of the ready way it produces gas (when cultivated on special media), a product which has not been observed in cultures of typhoid bac. The bacilli coli is distinctly a sewage organism, and the importance of its detection in water is an evidence of sewage pollution.

Brine.—In six samples examined, some were found greatly contaminated with foul odour-producing organisms, while in one sample a very large number of bacilli coli were present.

Milk.—Several of the 14 samples received were found to be very much contaminated with extraneous organisms, but in no instance were tubercle bacilli detected.

Tinned salmon.—Several families were alleged to have suffered from ptomaine poisoning through eating a certain brand of tinned salmon, which, on examination, was all that could be desired in flavour, colour and odour, and perfectly sterile; yet on bacteriological examination was found to be simply a mass of micro-organisms. A noticeable feature of every tin of this particular brand of salmon was, that instead of having one blowhole only, it had two, each covered with a piece of solder. Apparently what had happened was that the tins were filled with salmon, imperfectly sterilised, and then soldered down. In due course, instead of the ends remaining concave, they became convex; due to the generation of gas from the micro-organisms developing after the imperfect heating process. They were pierced near the first blowhole, the ends pressed in, thoroughly sterilised, the blowhole sealed, the tin neatly varnished, covered with an

attractive label, and finally placed on the market as something very choice at an absurdly low price. Although it may not be a golden rule that the fish or meat contents of a tin having two drops of hot solder placed on its end are decomposed, I strongly warn anyone to be extremely suspicious about eating preserved foods taken from a hermetically sealed tin that has two blowholes, for I have found a similar condition in tins of potted meats, sardines, and fruit preserves.

Dengue fever.—In July, 1905, I submitted a progress report on the investigations in connection with the then prevailing epidemic of dengue fever. Specimens of blood, nasal mucus, and swabbings from the tongue and throat of 48 patients were examined, and controls were made from healthy persons from Sydney and Dunwich, at which places the affection had not made its appearance. The specimens were treated by various staining reagents and examined microscopically. Cultivation was tried under aerobic and anaerobic conditions, and animals were inoculated with the different micro-organisms that were isolated. As might be expected, the material from some of these sources contained a large variety of micro-organisms, including mucor, penicillium yeasts, bacilli, and cocci. One organism (a small polymorphic bacilli) was found constant in 11 cases of nasal mucus, but not in the blood; dengue being a disease apparently peculiar to the human subject, the evidence from the animal experiments failed to prove that the bacillus was the sole exciting cause of the disease.

Experiments with cultures of bacilli for rat destruction.—A number of cultures of rat virus (Danyasz) was obtained in May, 1905, and a similar consignment (Laroche) a few months later. The results of the examination showed that with the Laroche cultures several were dead, while the remainder did not possess any virulent properties. Mice and rats of different ages were experimented upon, some being fed and others inoculated without producing any symptoms of sickness whatever. With the Danyasz virus, however, it was found that the rats and mice fed or inoculated with a small quantity of the original cultures, many died in from seven to twenty days. Since that date, for the past 10 months I have kept this organism growing in various kinds of artificial culture media, and, in order to maintain a high standard of virulence, it has been passed through the bodies of a large number of susceptible rats and mice by means of feeding and subcutaneous inoculation. Between February 16th and June 30th, Dr. T. Bancroft, the late health officer, was supplied bi-weekly with stocks of young, active and virulent broth and Agar cultures of Danyasz bacilli, the total amount being 1521 oz. of bouillon culture and 633 petrie dishes of Agar culture. This material was mixed with specially prepared baits for the destruction of rats in and around Brisbane, and, judging the control observations on rats and mice kept at the institute, the results should have been eminently successful. In addition, considerable quantities of this virus have been despatched to Rockhampton since the recent outbreak of plague there. In 23 experiments on 80 rats which were fed either upon portions of the bodies of animals that had died from eating Danyasz virus or cultures of the organism, 53, or 66 per cent., died of the disease. Of 12 rats inoculated with Danyasz virus, 11 died of the disease. Of three contacts placed in a jar with several inoculated rats, two died of the disease. Of three contacts placed in a jar with several inoculated rats, two died of the disease; the other one remaining alive showing no signs

of sickness. Of five mice fed with Danyasz bacilli only two died of the disease. Of 21 mice inoculated with the same material, all died within the prescribed time. Post-mortem and microscopical examinations proved that every animal had died from the effects of the virus. Only one mouse was placed in the same jar as an inoculated one, and both died of the disease. Four guinea-pigs were inoculated with virulent Danyasz virus, but all remained unaffected. Two were fed with the same result. Seven rabbits inoculated and two fed with the virus remained alive without showing any symptoms of sickness. Similar results were obtained from experiments on pigeons, ducks and fowls. From these observations there can be no doubt this method of destroying rats and mice must be considered as highly satisfactory, so long as the virus supplied is maintained at a high standard of virulence. Moreover, its continued use, in combination with other schemes for the destruction of the vermin—such as trapping and poisoning—is to be recommended.

Report of the Government Analyst.—In all 202 samples of food have been examined. The greater portion of the samples were those of cream of tartar, every shipment of which is tested. Out of 122 samples analysed, 31 failed to come up to the requisite 95 per cent. of hydrogen potassium tartrate, but nearly all of these 31 were between 94 and 95 per cent. There was only one really poor sample, 83·5 per cent., and it is evidence of the great improvement in the cream of tartar supply that this 83·5 per cent. would, before the Health Act of 1900 was passed, have been considered of fair quality. The average composition of the whole 122 samples is slightly over 95 per cent. hydrogen potassium tartrate, while of the samples passed it is nearly 96 per cent. Of nine samples of tea submitted through the Customs Department as of suspicious quality, eight were found to pass and one was stopped for containing "lie tea." Only six samples of milk were submitted for analysis. One sample of milk was not adulterated, one contained 56 grains and another 80 grains of boric acid per gallon, while the three others contained respectively 10 per cent., 16 per cent., and 20 per cent. of added water. One sample each of condensed milk, "evaporated cream" (which is the trade term for unsweetened condensed milk), and dried milk were found to be of normal composition. One sample of mustard out of four examined was found to be genuine; the three other contained starch and were coloured with turmeric. One sample of pepper out of six examined was found to be genuine. The other five samples contained respectively 1·5 per cent., 3 per cent., 6 per cent., and 20 per cent. of sand. Five samples of custard "powder" were examined. They had all the same composition, being maize starch, flavoured with a little vanilla, and coloured with coal tar dye. Two samples of bottled peas contained respectively 0·58 and 0·66 grains of copper per pound. Three samples of essences were in accordance with the labels. Two samples of salad oil were examined; one was found to be olive oil, the other cottonseed oil. Two samples of table jellies were found to have the usual composition of glucose, cane sugar, a little gelatine and flavouring, and were coloured with coal tar dyes. Three samples of cordials were found to be genuine. In addition to the above, seven samples of water were reported upon, and 20 samples of miscellaneous character were analysed, such as tobacco, hop beer, vinegar, sulphur, fish paste, etc. Seven samples of carbolic disinfectants were examined, and five were found good; the remaining two contained only 2·5 per cent. of phenols.

HOSPITAL INTELLIGENCE.

Brisbane Hospital.—At the ordinary meeting of the Brisbane Hospital committee last month the medical report for the two weeks ended January 19th was as follows:—Inpatients: Remaining under treatment at date of last report, 226; since admitted, 163; discharged—cured or convalescent 89, relieved or improved 40, *in statu quo* 12; died, 7; remaining under treatment, 241. Outpatients' attendances: At hospital, 1027; at South Brisbane branch dispensary, 131. Convalescent Home: Remaining under treatment at date of last report, 12; since admitted, 11; discharged, 16; remaining under treatment, 7. The financial statement was as follows:—Treasury loan—the second of 40 quarterly instalments of £309 7s 1d—was paid on December 31. Committee's current account with A.J.S. Bank: Credit balance at last meeting, £1133 4s 4d; received, £183 17s 7d; expended, nil; balance at credit, £1317 1s 11d. The general secretary, Hospitals Aid Association, forwarded £365 11s, representing the third and last instalment of the Special Appeal Fund. The acting general secretary, Hospitals Aid Association, forwarded £365 11s, representing the amount allocated to the Brisbane Hospital from the balance standing to the credit of the association as on December 31. In respect to the Wattlebrae agreement, the secretary submitted a statement showing that the voluntary income for the 12 months, 1906-7, required by the forecast issued last year was £117. The voluntary contributions received since July were:—July, £159; August, £110; September, £753; October, £118; November, £42; December, £651; January (to 19th), £516. Total, £22349. Required by June 30th, £2768. The forecast anticipated £2000 from intern receipts. For the half-year there was realised £839. It would therefore be well to strive for £3000 in voluntary contributions to be sure of making ends meet. The Hospitals Aid Association wrote as follows, under date January 23rd:—"Dear Sir,—I have the honour to convey to your committee the information that by resolution carried at a special meeting of the association it was decided to dissolve the association as from December 31st last, and in accordance with that resolution all moneys collected up to that date have been dealt with, and the amount distributed to the four benefiting associations on the basis adopted by the association. At the beginning of last year the executive council of the association decided to earmark a sum of not less than £500 to be distributed between the Sick Children's, Lady Bowen, and Lady Lamington Hospitals, on account of the special effort being made for the Brisbane Hospital. You will be pleased to know that that amount was exceeded by £27 6s 11d. During the existence of the Hospitals Aid Association, which only existed for the raising of funds for the various hospitals, they have distributed to the four benefiting institutions the large sum of £22,772 0s 7d. This work has now practically ceased, and it is the hope of the executive council that each of the hospitals will receive that financial help which they so deserve in maintaining the institutions which are doing so much for the sick poor of Queensland." It was decided to send a letter expressing thanks and the heartiest appreciation of the valuable aid rendered by the association during its existence.

Launceston General Hospital.—At the January meeting of the hospital board the finance committee reported that the collection of fees for the

past six months amounted to £1007 3s 8d, an increase of £35 6s 3d over the similar period in last year. The Surgeon-Superintendent reported that 83 patients had been admitted since January 1st, 66 discharged, and 6 had died, remaining in hospital 110; 148 new out cases were treated during December. There were now nine patients at the Convalescent Home, Perth. Last year it was announced that five anonymous persons had offered to contribute £500 towards the erection of a new operating theatre. The theatre had now been erected at a cost of £3000, of which the committee had yet to collect £500 or £600. The Government had given £1000 towards the cost, and the board £500 from private funds.

Hobart Hospital.—At the last monthly meeting of the Hobart General Hospital the visiting committee reported that since the date of last report the grounds, buildings, wards, etc., had been regularly inspected, and authority given to have several items of repairs effected. The quality of the provisions supplied by the several contractors had been carefully examined from time to time, and found satisfactory. The salary abstract and accounts for the month of December, amounting in all to £607 9s 5d, were examined, found correct, and passed for payment. The fees collected during the month amounted to £63, and at December 31st the sum of £325 16s 1d remained on the books for collection. The Samaritan Fund shows £2 2s 3d expended during the month, leaving a credit balance of £192 10s in the Savings Bank. The Medical Students' Fund shows a credit balance of £35 19s 10d, and the Library Fund a credit balance of £5 4s 10d in the Savings Bank. During the month 203 patients have been treated in the hospital. Of this number, 5 died and 122 were discharged, leaving in the institution on January 1st 45 males and 31 females. The daily average number of occupied beds was 86, as compared with 74 during the month of December in 1905 and 1904, and 63 in 1903. In the outpatients' department 112 new cases were treated; casualties, 31; total attendances, 384.

Sydney Hospital.—The new south wing of the Sydney Hospital is almost completed, and will shortly be ready for occupation. This will give additional accommodation to the extent of 120 beds, and will also provide other necessary adjuncts to the hospital. The building is one of four stories and a basement, and has been carried out at a cost of upwards of £20,000. The building is in keeping with the architectural design of the back elevation of the main hospital. Each floor contains a ward fitted for 30 beds, and there are two or more private wards on each story. In addition to the ward accommodation on each floor, there are also laboratories, ward sculleries, and well-appointed bathrooms, and also lavatories. The basement has been fitted as storage rooms, disinfectant chamber, X-rays, dark rooms, and general stores. There is also a large and well-appointed operating room, attached to which are the sterilising and anæsthetic rooms. Each floor has an excellent approach by means of broad staircases, but in addition there are large elevators so constructed as to take in not only a patient but the stretcher or invalid chair as well. Each floor has a balcony 10 ft. wide running from end to end of the building. The height of the ceilings on each story is 14 ft. 2 in. All the floors are constructed of reinforced concrete on steel girders, with solid arched ceilings underneath. The walls and ceilings are plastered and painted with sanitary paint. It is a flat

roof, with a promenade on top extending over the whole building. This is an excellent means of affording opportunity for patients to obtain exercise and fresh air.

Western Suburbs Hospital, Sydney.—The 16th annual meeting of the Western Suburbs Hospital was held last month. The annual report stated that 255 patients were admitted for treatment during the past year. The average time of residence of the discharged patients was a little over 26 days for each case, and the cost per bed per annum was estimated at £47 8s 9d. During the latter part of last year a resident of the Western Suburbs had made a generous gift of £1000 on condition that the money was used in enlarging the ward accommodation. In consequence of this the committee had purchased the adjoining property on the eastern side of the hospital. It had been decided that the new ward should contain ten beds. The house at present on the property in question would be converted into a home for the nurses, while the rooms now occupied by the nursing staff would be turned into a small ward for children. The Premier had promised to give £500 on condition that £300 was raised by a special effort. The expenditure for the past 12 months had amounted to £1179, while the total revenue was £1886. The financial condition of the institute showed satisfactory progress. In 1902 the revenue was estimated at £1127, so a considerable increase had taken place.

The Women's Hospital, Sydney.—At the last monthly meeting of the board of directors the matron's report for the month of December showed:—Patients treated indoor, admitted 35, discharged 43, remaining in the hospital 20, and 7 infants; births, indoor 23, outdoor 38, making a total of 61; 79 patients were treated at the outpatients' department. Dr. J. K. Osborne was appointed honorary resident medical officer for a term of six months. The treasurer reported that the recent fête had proved a great success, resulting in a cheque for £335 10s being received from the fête committee. The urgent necessity of arranging for additional accommodation at the hospital was considered, and a sub-committee was appointed to go into the matter.

Newcastle Hospital.—At the annual meeting of the subscribers to the Newcastle Hospital, held on February 1st, the annual report of the committee drew attention to the fact that the main hospital and isolation quarters were badly in need of renovation, both outwardly and inwardly, and that the necessary work should be done as soon as funds were available. These renovations could not be carried out during the past year owing to lack of funds. As the maintenance of the hospital in good repair was a duty devolving on the Government, it being impossible to provide for it out of the ordinary income, many appeals had been made to the Chief Secretary, both directly and through deputations, but, unfortunately, so far the efforts to procure assistance had been unavailing beyond obtaining a promise from the Chief Secretary that the matter would receive consideration when allotting his estimates for hospitals. A new laundry of commodious dimensions had been erected by the Government at a cost of £1315. The matter of furnishing the machinery would be referred to the Minister. The disability of the hospital in the lack of proper culinary appointments and a modern kitchen would, it was hoped, be remedied by representations made to the Government. The limited ward accommodation for accident cases continued to be a serious hindrance

to the expansion of work, which was not made less serious by the increasing trade of the port. The annual medical report showed that 967 patients were treated during the year, 778 being discharged cured, 105 relieved, 32 unrelieved, and 85 died. The attendance of outpatients during the year was 2827, and individual patients 552. The average death-rate of inpatients was 8.22 per cent. The average cost per patient per annum was £62. The number of operations performed under anaesthetics was 364. The balance-sheet showed a credit balance of £115, as against £23 at the beginning of the year. The receipts amounted to £2899, exclusive of the Government subsidy of £1119.

Royal North Shore Hospital, Sydney.—At the 19th annual meeting of the Royal North Shore Hospital, held last month, the report stated that, in pursuance of the scheme outlined in the last annual report, additional buildings had been erected in the form of the annexes of a second ward pavilion, which would be utilised as a temporary ward, and would provide accommodation for 18 beds, thus relieving to a great extent the pressure upon the space, which during the past year had at times been inconveniently great. The new building was duly opened by his Excellency the State Governor, Admiral Sir Harry H. Rawson, on January 22nd. The funds provided by the sale of the old hospital site and buildings have, under the authority of the Equity Court, been spent on the erection of this new annexe. During the year 645 patients had been treated, being an increase of one on last year's figures. Of these 496 were discharged cured, 20 relieved, 43 unrelieved, and 49 died, leaving 37 under treatment at the end of the year. The average daily number resident had been 42.84. The total number of deaths (of which 15 occurred within 24 hours after admission) was 49, being 7.59 per cent. A decrease in the receipts for the year, apart from the Government subsidy, was shown by the honorary treasurer's statement, but the total receipts showed an increase of £252 10s 2d. The expenses showed an increase of £96 5s 4d, principally due to extraordinary expenditure. Subscriptions of amounts of 10s and upwards total £664 19s 8d, being an increase of £15 10s 8d. Donations, however, when compared with those for 1905, showed a falling-off of £259 10s 7d, the total for 1906 being £989 18s 1d. Of the 645 patients in the hospital during the year, 186 contributed a sum of £364 16s 4d for maintenance. The amount similarly contributed in 1905 was £426 4s 5d. The endowment fund now stands at £850. The rules were so amended as to allow for the increase of the hon. medical staff by two, this permitting four members of the staff to become members of the committee.

Thomas Walker Convalescent Hospital, Sydney.—The 13th annual report states that the number of patients treated during the year was 1000, an increase of 42 upon the previous year; 861 were discharged cured, 59 relieved, 1 unrelieved. There was one death, and 78 remain in the hospital, the daily average being 77; average residence of discharged patients, 28½ days. The diseases of the digestive system head the list with 168 cases, those of the respiratory system coming next. The accommodation of the hospital has been taxed almost to its fullest extent; in fact, on many occasions the demand for women's beds had greatly exceeded the supply. Much to the regret of the committee, Miss Emily Howard resigned her position as Matron on March 31st last. Miss Ruth E. Newnham was appointed to the vacant matronship on July 1st last.

MEDICAL NOTES.

A Hospitals and Charities' Association.—

The first meeting of the provisional council of the newly-formed Hospitals and Charities' Association was held in Melbourne last month. A preliminary meeting was held in the Town Hall on December 19th, when the objects of the association and provisional officers were approved. At the council meeting on January 23rd a number of suggestions were submitted for consideration. It was agreed that the annual subscription should range from 10s. in the case of those institutions with an annual subsidy of less than £300, to £5 for those with subsidies of £8000 and over. The chairman, in referring to the action of certain institutions in refusing to join the association, pointed out that a similar movement was regarded as absolutely necessary in Great Britain. In the *Lancet* of December 15th, 1906, details were given of a conference of delegates representing the hospitals of Great Britain and Ireland, and he thought when the institutions now standing out of the association realised what was being done elsewhere they would see fit to alter their attitude in regard to it. Amongst the details discussed at the English conference were subjects exactly similar to those which the association was being formed to deal with.

Friendly Societies' Dispensary and Medical Institute.—

The nineteenth annual meeting of the Sydney United Friendly Societies' Dispensary and Medical Institute was held last month. Representatives from 122 lodges attended. The president stated that the past 12 months had been a period of steady progress, each of the four dispensaries showing an increase of membership. On December 20th last the number of lodges affiliated with the institution was 131, with a total membership of 10,369 registered as entitled to benefits, distributed as follows:—Head office, 5690; Redfern branch, 2468; Paddington branch, 1235; and Glebe branch, 976. During the year 1906 there were 143,994 scripts dispensed for 86,408 patients. An association was being formed for the mutual benefit and protection of friendly societies' dispensaries and medical institutes in New South Wales, and it was considered that the institution should extend its hearty co-operation with the movement. Rule 23 had been altered, giving lodges the benefit of participating in any of the profits or rebate on accounts after one year's affiliation. As no entrance fee was charged, it was thought that the concession granted would be the means of still further advancing the interests of the institution. Friendly society lodges at Waverley and Botany had been meeting in conference for the purpose of inducing the board to establish branch dispensaries in the districts named. If sufficient inducement was offered branches would be established without delay. Financially the progress of the institution had been for the past 12 months very satisfactory, as, after returning 12½ per cent. of the payments received to the lodges, a satisfactory balance had been carried forward.

Population of New South Wales.—The population of New South Wales on December 31st last was 1,530,940, the number of males being 815,070, and females 715,870, or 114 males to 100 females. The increase during the year was 34,890, of which 25,895 was due to excess of births over deaths, and 8995 to excess of immigration over emigration. The excess of births over deaths was the largest ever experienced, but the excess of arrivals is 1000 less than

in 1905. The number of births during the year was 40,898, the largest number ever registered in any year. The rate was 27 per 1000 of population, which is higher than in any of the three preceding years. The deaths numbered 15,003, of which 8709 were of males and 6294 of females. The rate was 9·91 per 1000 of the population—that is, less than 1 per cent.—the first time it has ever stood so low. The rates for 1904 and 1905 were both very low, but 1906 shows a further improvement. The marriages were 11,630, the largest number on record, and 560 more than in 1905. The rate is 7·64 per 1000 of population, which is a fraction lower than in 1901, but otherwise is the highest for 20 years.

Dental Hospital, Sydney.—

The annual meeting of the subscribers and life governors of the United Dental Hospital of Sydney was held last month. The president (Dr. E. Randolph Magnus) in his annual address gave a review of the year's work. He said the efficiency of the hospital, which was their first duty, had been throughout the year of a high and satisfactory character. The hospital had just passed through an interesting stage in its development. Negotiations which were pending between the Dental Association, the University Senate, and the hospital had terminated satisfactorily, and in future the whole of the dental education of the State would be under one roof, and that their own. Such being the case, they hoped to receive more consideration and support from the dental profession, as well as from the public. Their position roughly showed that while they had themselves raised over £1100 they had only received £400 from the Government, and this in the face of the fact that they were the only free hospital in this or any other State. The question of new and up-to-date premises had engaged the attention of the management, and a sub-committee was dealing with this matter. The financial year showed a falling-off. They hoped to gradually extend their new schemes of classes for dental board students and dental practitioners' clinics. They now had 20 chairs in use daily, but these were inadequate for their requirements, and shortly they hoped to open the clinic and filling-room all day, instead of as at present in the afternoon only. This, together with an increased staff, would enable them to cope with the work, as they had on their staff most of the leading medical men and dentists in the city.

There was a considerable discussion at a recent board meeting of the Melbourne Hospital concerning the report of the house committee, which had found it necessary to sentence an employee to be censured by the chairman for taking a "tip." The man in question had injudiciously accepted a sum of money from a firm of paint manufacturers, whose paint was used on the institution, as a doer for the trouble he had gone to in conveniencing the firm. He had, however, refunded the money, and expressed his regret at having received it. He had only been in the employment of the hospital for a year, but the investigations of the house committee had resulted in statements having been obtained from two other firms that they had been paying gratuities to hospital employees for 12 years. Mr. Robt. Showers, chairman of the house committee, stated that he thought now that the matter had been officially investigated the "gratuity" system had been killed as far as the hospital was concerned.

Mr. G. Arnold wishes to draw special attention to his advertisement—Catgut, page 13.

PERSONAL ITEMS.

Dr. Cade, who has been resident medical practitioner, hospital surgeon, and the Government officer at Balranald, N.S.W., for the past two years, was entertained at a farewell social recently, on the occasion of his leaving the district, and presented with a handsome gold watch as a token of the appreciation of the townspeople of his many good qualities.

Dr. G. W. S. Marr has resigned his appointment as Assistant Medical Superintendent at the Hospital for the Insane, Goodna, Q.

Dr. S. H. Harris has left the Sydney Hospital, and his address is now 60 Alberto Terrace, Darlinghurst-road, Sydney.

Dr. F. H. B. Gaden has left Grenfell, N.S.W., and his address is now Union Bank, Haymarket, Sydney.

Dr. Deane has resigned his appointments to the Friendly Societies at Mathinna, Tasmania, and is leaving the district.

Dr. W. Ramsay Smith, chairman of the South Australian Central Board of Health, has received a notification that he had been made a Fellow of the Royal Society of Edinburgh.

Dr. H. A. Powell, of South Australia, has returned from a trip to Europe.

Among the New Zealand-bound passengers from England are the names of Dr. H. B. Leatham and Dr. G. Mirams, the latter travelling as ship's surgeon of the s.s. Somerset.

Dr. A. D. Boyd, medical officer to the Ashburton Charitable Aid Board, New Zealand, has resigned, and Dr. Maude is filling the vacancy *pro tem*.

Dr. Thomas Mill, M.B., B.S., F.R.C.S. (Edin.), has commenced practice at 66 Bealey-avenue, Christchurch, N.Z.

Dr. Clennell Fenwick has taken over the X-ray practice of Dr. Maude, Christchurch, N.Z., who has given up on account of bad health.

Dr. R. Maclean, of Narracoorte, S.A., is reported to be seriously ill, and Dr. J. M. Tighe, of Melbourne, is acting as his *locum tenens*.

During the absence of Dr. Humphries, Dr. Nisbet will act as medical officer and health officer at Townsville, Q.

Dr. J. Shedden Davis has commenced practice at Avoca-street, Randwick, Sydney.

Dr. C. W. Bruce has disposed of his practice at Candelo, N.S.W., and has removed to Randwick, Sydney.

Dr. W. Ramsay Sharp, late of North Sydney, has succeeded to Dr. C. W. Bruce's practice at Candelo, N.S.W.

Dr. W. C. Mansfield has resigned his position as junior medical officer of the Lunacy Department, New South Wales.

Dr. W. Morrison has been elected president of the Ballarat (Vic.) branch of the British Medical Association.

Dr. E. A. R. Bligh has commenced practice at "Talofa," Greenwich-road, Greenwich.

Dr. F. W. Morten has resumed practice at 156 Collins-street, and 39 Brunswick-street, Fitzroy,

Dr. Walter H. Jermyn, of Mount Gambier, S.A., has left on a trip to Japan, where he purposes spending three months for the benefit of his health.

Drs. A. S. Randell and P. Crank, of Adelaide, attended the Dental Congress at Sydney.

On February 6th, at the Café Français, Sydney, Dr. T. Fiaschi, was presented with an inscribed gold match-box and sovereign case by the council of the New South Wales Wine Association.

Dr. Jane S. Greig has commenced practice at 63 Collins-street, Melbourne.

In accordance with the terms of the engagement of Dr. Jones as Inspector-General of the Insane, Victoria, his salary has been increased from £1200 to £1400 per annum.

Dr. G. G. Phillips, who has been acting as medical officer at the Austin Hospital for Incurables, Heidelberg, Victoria, has been presented with a gold pencil case from the nursing staff, and also with a testimonial from the patients of the Kronheimer wing for consumptives, prior to his departure from the institution.

Dr. W. C. Faulkner, of Mount Bischoff, Tasmania, leaves next month for England on a six months' trip.

Dr. J. H. Bond, of Thames, N.Z., is leaving in March for England.

Dr. Louis Segal, who has been medical officer for the Narrabri, N.S.W., Lodge Unity, No. 43, M.U.I.O.O.F., for the past 15 years, and has resigned in consequence of ill-health, was recently presented with an illuminated address and a gold watch by the Grand Master.

Applicants for Hospital Relief.—A return showing the number of applicants presenting themselves at the hospital admission depot of the New South Wales Department of Public Health during the year 1906 is now available. The total number of persons who presented themselves at the depot during 1906 was 10,505. Of these 3683 were sent to the asylums at Rookwood, Newington, Parramatta, or Liverpool, as the cases required; 2281 patients were admitted to the Coast Hospital; 253 to the Royal Prince Alfred Hospital; 252 to the Sydney Hospital; and 102 to the Carrington Convalescent Hospital. In 1545 cases orders for treatment as outdoor patients were issued on the Sydney Hospital. In 2127 cases applicants were refused treatment at Government expense for various reasons.

Royal College of Physicians of London.—**The Weber-Parkes prize and medals.**—Prize of 150 guineas and two silver medals.—The next award will be made in 1909, and the adjudicators have selected as the subject of the essay for that occasion "The Value of Bacterial Products in Protecting against or in Curing Tuberculous Diseases, with special reference to Pulmonary Tuberculosis in Man." The essay must be based on original work and observations (experimental or other) of the author, and must include a detailed exposition of the methods employed and their mode of application. All essays, together with any preparations made in illustration of them, must be transmitted to the Registrar of the College during the last week of May, 1909, in accordance with the regulations relating thereto, copies of which will be forwarded from the College on application. The award will be made on some day previous to the 18th October in that year.—EDWARD LIVING, M.D., Registrar. Pall Mall

MILITARY INTELLIGENCE.

NEW ZEALAND.

Scott, Arthur Thomas, to be Surgeon-Captain, New Zealand Volunteer Medical Corps.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Davies, Leslie, M.B., to be Acting Officer of Health, Goulburn, during absence on leave of Robert George Reid, L.R.C.P.
Eroole, Q., M.D., to be Medical Officer, Grenfell Hospital, *vice* Dr. Gaden, resigned.
Foster, Dr., to be Medical Officer, Balranald Hospital, *vice* Dr. Cade, resigned.

McKelvey, J. L., M.B., and P. E. Walton Smith, M.B., Ch.M., to be Junior Demonstrators in Anatomy at the Sydney University for the year 1907.

The following gentlemen to be Resident Medical Officers for the Royal Prince Alfred Hospital, Sydney, for the current year, viz.:—H. R. G. Poate, C. F. Deakin, A. McInnes, H. H. Schlink, F. B. Craig, A. J. Mackenzie, O. A. A. Diethelm, C. H. B. Bradley, and W. Vickers.

VICTORIA.

Butchart, John E., to be Resident Medical Officer of Austin Hospital for Incurables at Heidelberg.

The undermentioned to be Medical Officers of Health for the districts set opposite their names, viz.:—

Bennett, Frederick Gilbee, L.R.C.P., Shire of Borung, to be Acting Officer of Health during the absence on leave of William Clow Little, M.D.

Cole, F. H., M.D., to be on the Pharmacy Board of Victoria.

Lane, Roland Mastai, M.B., Shire of Braybrook, to be Acting Officer of Health during the absence on leave of Charles Louis McCarthy, M.B.

McLean, Thomas Alexander, M.B., Shire of Traralgon, *vice* Herbert Roger Horne, L.R.C.P.

Naylor, Arthur George Eyre, L.R.C.P., Borough of Tarnagulla and Bet Bet, *vice* Alfred William Rinder, L.R.C.P.

Pern, Horace, M.R.C.S., Borough of Browns and Scarsdale and Borough of Smythesdale (joint appointment), *vice* Douglas Albert Robinson, L.R.C.P., resigned.

Walsh, Gerald, M.B., Shire of South Gippsland, *vice* Arthur George Eyre Naylor, L.R.C.P., resigned.

The undermentioned persons to be Public Vaccinators for the districts set opposite their names respectively, namely:

Greer, Claude, M.B., North-Western, *vice* Edmund H. Lindsay, L.R.C.S., resigned.

Horne, Herbert Roger, L.R.C.P., South-Eastern, *vice* Thomas C. Anderson, M.B., resigned.

Morris, Luther, M.D., North-Western, *vice* Leslie Davies, M.B., resigned.

Symonds, Charles Nathaniel, L.R.C.S., North-Eastern, *vice* Arthur N. Wilkinson, M.R.C.S., who has left the district.

SOUTH AUSTRALIA.

Alfred Bott, Ernest Alfred Cleland, and Reginald Francis LeLau, of Palmerston, in the Northern Territory, to be Assistant Health Officers.

Dawson, Dean, M.B., B.S., to be Health Officer for Booyoolie and Public Vaccinator.

Rogers, Richard Sanders, M.D., to be a visitor to the Parkdale Lunatic Asylum.

Wells, C. V., of Laura, to be Medical Superintendent, Adelaide Hospital.

The undermentioned gentlemen to be on the Dental Board:—

Cumdore, Arthur Murray, F.R.C.S.
Newland, Henry Simpson, F.R.C.S.

The following to be Resident Medical Officers in the Adelaide Hospital:—

William Ray, M.B., B.S.; Eric Henry Lewis, M.B., B.S.; Francis Edward McAree, M.B., B.S.; Rex Garnet Plummer, M.B., B.S.; Ernest William Griffiths, M.B., B.S.; and Dr. McKay (*vice* Susie O'Reilly, resigned).

WESTERN AUSTRALIA.

Elder, A. Vavasour, to be a Visitor to the York Gaol during the absence on leave of Dr. Davis.

Harvey, H. F., to be Honorary Gynaecologist to in-patients at the Perth Public Hospital, *vice* Dr. W. W. Ewbank, resigned.

Nyulasy, A. J., to be Honorary Surgeon to in-patients at the Perth Public Hospital, *vice* Dr. F. Tratman, resigned.

Webster, Alfred, M.B., Ch.M., to be Acting Resident Physician, Kalgoorlie Hospital.

The following medical practitioners have been elected to comprise the Dental Board for the years 1907, 1908, 1909:—

Leschen, Henry Adolphus.
Ramsay, James Edmund.
Teasdale, Harold Oscar

TASMANIA.

Halley, Gertrude, M.B., Ch.B., to be Medical Inspector to the Education Department of Tasmania.

L. A. Holmes, J. W. Webster and J. McI. Pardy to be *ex-officio* members of the Board of Management of the Launceston General Hospital for the year 1907.

Sprott, Gregory, M.D., D.P.H., to be Medical Officer of Health for the City of Hobart, *vice* Dr. Gerard Smith, resigned.

QUEENSLAND.

Campbell, Dr., to be Medical Officer of the hospital at Cloncurry. Kerwin, P. J., to be Health Officer for Port Douglas.

Murray, G. L., to be Medical Officer for the Kennedy Hospital, Bowen.

Page, F. W., to be Assistant Health Officer for the port of Brisbane.

NEW ZEALAND.

Hudson, James, M.R.C.S. (Eng.), L.S.A. (Lond.), B.M. (Lond.), to be a Public Vaccinator for the district of Motupiko.

Kendall, W. B. Martindale, of Wellington, has been appointed to the Therapeutical Society, London.

Maude, Charles Edmund, M.B., Ch.M. (Edin.), to be a Public Vaccinator for the district of Ashburton, *vice* Dr. A. B. Boyd, resigned.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as Legally Qualified Medical Practitioners in their respective States:—

VICTORIA.

Baillie, Mabel Jessie, M.B., 1900, Ch.M., 1902 (Syd.).

Blaubaum, Hubert, M.B. (Melb.), 1906.

Chauncy, James Hornidge, M.R.C.S. (Eng.), L.R.C.P. (Lond.), 1904.

Cookinham, Frank Hillman, M.D. (Chicago), 1906.

Davies, Muriel Kate, M.B. (Melb.), 1906.

Devine, Hugh Berchmans, M.B. (Melb.), 1906.

Dunhill, John Webster, M.B. (Melb.), 1906.

Easter, George Williams, M.B. & Ch.B. (Melb.), 1906.

Gill, Joseph James Lloyd, M.B. (Melb.), 1906.

Good, Ethel, M.B. (Melb.), 1906.

Harris, John James, M.B. & Ch.B. (Aber.), 1903.

Henderson, Mary Ankretell, M.B. (Melb.), 1906.

Hutchings, Thomas Stawell, M.B. (Melb.), 1906.

Jamieson, Margaret, M.B. (Melb.), 1906.

Lease, Charles Robert, M.B. & Ch.B. (Dur.), 1903.

Marsden, William Hudson, L.R.C.P. & S. (Edin.), 1900.

McLay, Robert Galloway, M.B. (Melb.), 1906.

McLean, Alice Mary, M.B. (Melb.), 1906.

McLaren, Charles Inglis, M.B. (Melb.), 1906.

McWhae, Douglas Murray, M.B. & Ch.B. (Melb.), 1906.

Opie, Archelaus James, M.B. (Melb.), 1906.

Parer, John Ignatius, M.B. (Melb.), 1906.

Perry, George Leslie, M.B. (Melb.), 1906.

Silberberg, Montefiore David, M.B. (Melb.), 1906.

Spring, James Francis, M.B. & Ch.B. (Melb.), 1906.

Wawn, Royle Newton, M.B. (Melb.), 1906.

Weir, Laura, M.B. (Melb.), 1906.

Weston, William Henry, M.D. (S. California), 1895.

Wilson, Norman Leslie Galloway, M.B. (Melb.), 1906.

Additional qualification registered:—

De Crespigny, Constantine Trent Champion, M.D. (Melb.), 1906.

Morris, Luther, M.D. (Melb.), 1906.

Weir, Albert Antliff, Ch.B. (Melb.), 1906.

Weihen, Albert Wallace, Ch.B. (Melb.), 1906.

NEW SOUTH WALES.

Binns, William Johnstone, M.B. (Syd.), 1907.

Bradley, Clement Henry Burton, M.B. (Syd.), 1907.

Cahill, Arthur Charles, M.B. (Syd.), 1907.

Craig, Francis Brown, M.B. (Syd.), 1907.

Deakin, John Edward Ferdinand, M.B. (Syd.), 1907.

Diethelm, Oscar Albert Anton, M.B. (Syd.), 1907.

Edwards, James George, M.B. (Syd.), 1907.

Fiaschi, Piero, M.R.C.S. (Eng.) 1906, L.R.C.P. (Lond.) 1906.

Foster, George Williams, M.B., B.S. (Melb.), 1906.

Gillespie, Arthur Paul, M.B. (Syd.), 1907.

MacInnes, Angus, M.B. (Syd.), 1907.

Mackenzie, Arthur Joseph, M.B. (Syd.), 1907.

Parker, Reginald Arthur, M.B. (Syd.), 1907.

Paul, George Augustus, M.B. (Syd.), 1907.

Poate, Hugh Raymond Guy, M.B. (Syd.), 1907.

Fridham, Harold Ernest, M.B. (Syd.), 1907.

Schlink, Herbert Henry, M.B. (Syd.), 1907.

Shellshear, Joseph Lexton, M.B. (Syd.), 1907.

Steele, Andrew Buchanan, M.B. (Syd.), 1907.
 Stewart, Jessie Marie, M.B., Ch.B. (Glas.), 1904.
 Stokes, Frank Oliver, M.B. (Syd.), 1907.
 Vickers, Wilfred, M.B. (Syd.), 1907.
 Walker-Smith, Hugh Bell, M.B. (Syd.), 1907.
 Wall, Arthur Percy, M.B., B.S. (Edin.), 1906.
 Withers, Oswald Edgar Bruce, M.B. (Syd.), 1907.

For Additional registration.

Bligh, Erasmus Algernon Robert, M.S. (Syd.), 1905.
 Gwynne-Hughes, Devereux, F.R.C.S. (Edin.), 1906.
 Willis, Charles Saville, M.R.C.S. (Eng.) 1905, L.R.C.P. (Lond.)
 D.P.H., R.C.P. (Eng.) 1906.

QUEENSLAND.

Allen, Thomas Percival, M.B.C.S.E., 1900; L.R.C.P. (Lond.).
 Anderson, Arthur, M.B., M.Ch. (Syd.), 1902.
 Spark, Ernest James Schuldharn, M.B., M.Ch. (Syd.), 1895.

SOUTH AUSTRALIA.

Griffiths, Ernest William, M.B., B.S. (Adel.), 1906.
 Harris, James Frederick, M.B., Ch.B. (Melb.), 1901; M.D. (Melb.), 1905.
 Lewis, Eric Henry, M.B., B.S. (Adel.), 1906.
 Makin, Frank Humphrey, M.B., B.S. (Melb.), 1901.
 McAree, Francis Edward, M.B., B.S. (Adel.), 1906.
 Ray, William, M.B., B.S. (Adel.), 1906.

TASMANIA.

Gmelin, Ferdinand, Staats Exam., Halle, 1889; M.D. (Leipzig), 1890.

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

BIRTHS, MARRIAGES AND DEATH.

BIRTHS.

CARR.—January 24th, at Port Pirie, South Australia, the wife of Hampden Carr—a son.
 ELLIS.—January 21st, at her residence, Nairn, Manilla, N.S.W., the wife of Dr. L. E. Ellis—a son.
 MUMMERY.—January 12th, at Southsea, England, the wife of Surgeon N. H. Mummery, R.N.—a daughter. (By cable.)
 SHEPHERD.—February 1, at Annery, Darling Point, Sydney, the wife of Staff-Surgeon Cyril Shepherd, R.N.—a daughter.

MARRIAGES.

CARMICHAEL—JAKINS.—December 22nd, 1906, at Carlton, John Albert, only son of the late Peter Carmichael, M.A., Inspector of Schools, Warrnambool, to Catherine Vosper, second daughter of Dr. Jakins, Camberwell, Victoria.
 GREEN—MAGAREY.—January 21st, at Carlton, Victoria, William Marshall Green, of Park-terrace, Wayville, to Maria, widow of the late Dr. S. J. Magarey, of Adelaide, S.A.
 HAMMOND—MORGAN.—January 23, at St. Stephen's Mittagong, Ernest Douglas, son of the late T. W. Hammond, Wyoming, Old Junee, to Grace Cecil, youngest daughter of Cosby W. Morgan, M.D., Granville, N.S.W.
 RESTELL—ETCHES.—December 6th, at St. Andrew's Church, Christchurch, N.Z., Dr. John Restell, eldest son of Dr. W. Thomas, to Eva Mabel, youngest daughter of the late Thomas Etches, Oxford, England.

DEATH.

WEBSTER.—January 26th, at "Bellevue," Elgin, Scotland, James Webster, M.D., aged 83 years. (By cable.)

BOOKS RECEIVED.

A Textbook of Human Physiology. By Dr. Robert Tigerstedt. Translated and edited by J. R. Murlin, Ph.D. Introduction by Professor Graham Lusk, Ph.D., F.R.S. (Edin.). Pages xxxi+751. New York and London: D. Appleton & Co. Sydney: Angus & Robertson. Price, 18s.
 Diseases of the Digestive System. Edited by Frank Billings, M.D. Translated from "Die Deutsche Klinik," by Julius L. Salinger, M.D. With 45 illustrations. Pages xvi+823. New York and London: D. Appleton & Co. Sydney: Angus & Robertson. Price, 27s 6d.

Around Africa via Lisbon: A Medical Tour. By Nicholas Senn, M.D., Ph.D., LL.D., C.M. Chicago Press of the American Medical Association, 108 Dearborn Avenue.

Aids to Medical Diagnosis. By Arthur Whiting, M.D., M.R.C.P. Number of pages xv+152, 8 illustrations; size, foolscap 8vo. Price, 2s 6d cloth. London: Baillière, Tindall and Cox. Sydney: L. Bruck. 1907.

Premier Congrès de la Société Internationale De Chirurgie Bruxelles, 18-23 Sept., 1905. Publiés par le Dr. A. Depage, Secrétaire Général du Congrès, Rue de Louvain 112. Bruxelles: M. Hayez. 1906.

The British Journal of Tuberculosis. Edited by T. N. Kelynack, M.R.C.P. January, 1907 issue. London: Baillière, Tindall and Cox. Price, 1s 6d net.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Messrs. G. Street & Co., Ltd., 8 Serle-street, Lincoln's Inn, London; Messrs. Beard, Watson & Co., Sydney; Mr. L. Bruck, Sydney; Mr. G. T. Taylor, Hobart; Messrs. Fredk. Stearns & Co., Detroit; the Denver Chemical Manufacturing Co., Denver; the Editor, "Therapeutic Gazette," "Medical Age" and the "Bulletin of Pharmacy" Detroit; Messrs. Lemke & Buechner, New York; the Fellows Medical Manufacturing Co., New York; Dr. G. Lane Mullins, Sydney; Dr. B. J. Newmarch, North Sydney; Dr. Jno. Macpherson, Young, N.S.W.; Dr. A. B. Brockway, Brisbane; Dr. E. De Marco, White Cliffs, N.S.W.; Dr. Chas. Fetherstonhaugh, Conyong, Vic.; Mr. Robt. Watson, Mathinna, Tas.; Mr. G. Arnold, Sydney; the Manager, "Antiphlogistine," Sydney; the Lambert Pharmacal Co., St. Louis, U.S.A.; Messrs. Morgan & Smith, Sydney; Dr. Geo. Skinner, Casterton, Vic.; Dr. E. Angus Johnson, Adelaide; Dr. C. H. Mollison, Melbourne; Messrs. Felton, Grimwade & Co., Melbourne; Messrs. Potter & Birks, Sydney; Dr. Fourness Barrington, Sydney; Dr. H. S. Lloyd, Sydney; Dr. E. S. Stokes, Sydney; Dr. Guthrie Rankin, London; Messrs. Baillière, Tindall & Cox, London; Dr. Lipscomb, Sydney; Dr. F. A. Pockley, Sydney; David Fell, Esq., Sydney; Mr. Jno. Watson, Sydney; Dr. R. W. M. McCredie, Picton, N.S.W.; Dr. Hy. Laurie, Melbourne; Miss Gillett, Drayton, Q.; Mr. Wm. Muir, N. Carlton, Vic.; Dr. W. Cleaver Woods, Albury, N.S.W.; Messrs. Parke, Davis & Co., Sydney; Messrs. F. A. Faulding & Co., Adelaide; Dr. Flashman, Sydney.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor."

We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valeric Aldehyde, which make themselves unpleasantly noticeable in crude oils by the tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creosote." The *Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

List of Members of the New South Wales Branch of the B.M.A.

- *Abbott, George Henry, Stanmore-road, Petersham.
 Alcorn, R. G., West Maitland.
 Alcorn, S. A., East Maitland.
 Allan, George, Summer Hill.
 Anderson, H. M., Cootamundra.
 Andrews, A., Albury.
 Armstrong, George, College-street, Sydney.
 Armstrong, W. G., Town Hall, Sydney.
 Arthur, Richard, M.L.A., Mosman.
 Asher, Morris, Darling Point.
 Ashton-Shorter, H. L., Petersham.
 Atcock, M. H., Coolamon.
 Ayres, C., travelling.
 Barkas, W. J., Paddington.
 Barnes, E. H., Mosman.
 Barrington, Fourness, Macquarie-st., Sydney
 Barton, J. & B. D., Narrabri.
 Bean, H. K., Wallasey.
 Beattie, J. A., Liverpool.
 *Beeston, J. L., Newcastle.
 Beith, Robert, Kila.
 Bell, G. L., Waverley.
 Bell, H. T., Murwillumbah.
 Bell, H. C. R., Coolah.
 Belli, R., Coonamble.
 Benjafield, V., Union-st., North Sydney.
 Bennet, F. A., College-street, Sydney.
 Bennett, F. A., Morpeth.
 Bennetts, H. G. (travelling).
 Bernstein, L., Lismore.
 Bertram, T. D., Coonamble.
 Binney, E. H., Macquarie-street, Sydney.
 Birch, C. O., Liverpool.
 Blackall, P., Queanbeyan.
 Blackburn, C. B., College-street, Sydney.
 Blackwood, F. G., Turrumunna.
 Blackland, E. G., Burwood.
 Bligh, E. A. R., Greenwich-rd., Greenwich.
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 Boazman, W. H., Parkes.
 Bobart, A. O., H.M.S. "Wallaroo," Syd.
 Boelke, Grace Fairley, Hunter's Hill.
 Boelke, P. W., Hunter's Hill.
 Bowker, Charles S., Dungog.
 Bowker, R. R. P. S., Stroud.
 Bowker, E. Steer, Macquarie-st., Sydney.
 Bowker, C. V., College-street, Sydney.
 Bowman, Reginald, Parramatta.
 Bowman, Alistair Stuart, Singleton.
 Boyden, P. H., H.M.S. "Prometheus," Farm Cove.
 *Brady, Andrew J., Lyons-terrace, Hyde Park, Sydney.
 Brandon, A. J. S., Liverpool-st., Sydney.
 Bray, P. Dean, Orange.
 Brennand, H. J., Macquarie-st., Sydney.
 Broad, W., Narrandera.
 Broinowski, G. H., Narrandera.
 Browne, Claude (travelling).
 Brown, W. S., Parramatta.
 Browne, Harold, Summer Hill.
 Broadbent, P. L., Forbes.
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 Burge, S. B., Waverley.
 Burgess, T. W. W., Wagga Wagga.
 Buritt, W. F., Glebe.
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 Burkitt, W. A., Handcock, Goulburn.
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 Button, H. G., Junee.
 Cahill, A. J., Coraki.
 Cameron, M. L., Grafton.
 Campbell, A. W., Macquarie-st., Sydney.
 Campbell, A. G., Marrickville.
 Capper, H. S., North Sydney.
 Cargill, W. D., Miller-st., North Sydney.
 Caspersen, E., Wyalong.
 Chapman, H. G., Sydney University.
 Chapple, Phoebe, Sydney Medical Mission, Riley-street, Surry Hills.
 Chenhall, W. T., Macquarie-street, Sydney.
 Chisholm, W., Macquarie-street, Sydney.
 Clarke, G. R. C., Warrongana.
 Clay, W. R., Hornsby.
 Cluibe, Charles Percy Barlee, 195 Macquarie-street, Sydney.
 Cobb, J. F., Sofala.
 Cohen, Algernon A., Darlinghurst-road.
 Collins, P. J., Woolahra.
 Connolly, T. P.
 Connolly, Noel A. W., Drummoyne.
 Cooley, A. G., Botany.
 Cooley, P. G., Redfern.
 Cope, H. Roger, Glen Innes.
 Corbin, A. G.
 Corlette, C. E., Liverpool-st., Sydney.
 Corfe, A. J., Peak Hill.
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 Cox, Harrie, Warren.
 Cox, F. H., Lambton.
 *Crago, W. H., College-street, Sydney.
 Craig, Gordon, Newtown.
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 Cribb, A. G., Millthorpe.
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 Davidson, A., Callan Park.
 Davidson, L. G., Balmain.
 Davis, T. S., Lockhart.
 Davis, J. S., Randwick.
 Davies, R. L., Newtown.
 Davis, G. C., 167 Liverpool-st., Sydney.
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 De Marco, E., White Cliffs.
 Dey, R., Bourke.
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 Dowling, Norman, Young.
 Dunlop, N. J., Newcastle.
 Durack, W. J., Marble Bar, W.A.
 Eames, W. L. E., C.B., Newcastle.
 Edwards, D. R., 87 Pitt-street, Sydney.
 Elder, A. G. V., G.P.O., York, W.A.
 Ellis, L. E., Manilla.
 English, Jos., Yass.
 Evans, Thos., Macquarie Chambers, Macquarie-street, Sydney.
 Ercole, Q., Castlereagh-street, Sydney.
 Failes, F. G., Coonabarabran.
 Fairfax, E. W., Liverpool-street, Sydney.
 Faithfull, R. L., Liverpool-street, Sydney.
 Farrell, R. M., Quirindi.
 Ferguson, R., Hunter-street, Newcastle.
 Feilchenfeld, E., Hay.
 Fiaschi, Thomas H., D.S.O., Macquarie-street, Sydney.
 Fiaschi, Carlo F., Macquarie-st., Sydney.
 Finckh, A. E., Sydney Hospital.
 Finlay, Sinclair, Balmain.
 Finniss, J. H. S., Goulburn.
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 Fitzpatrick, E. B., Erinvale, Junee.
 Flashman, J. F., University, Sydney.
 Florence, Egbert, Cootamundra.
 Flynn, John, College-street, Sydney.
 Fordyce, H. S., Maclean.
 Foreman, Joseph, Macquarie-st., Sydney.
 Forster, R. C., Narramine.
 Foulds, Basil, Camden.
 Fox, R. A., Rookwood Asylum.
 Freyer, J. K., Orange.
 Frizell, Thomas, Strathfield.
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 Gibson, John, Windsor.
 Gill, J. M., College-street, Sydney.
 Gillies, Sinclair, Macquarie-st., Sydney.
 Glommi, Marco, Trangie.
 Gladden, A. Maitland, College-st., Sydney.
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 Goldsmith, F., Chatswood.
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 Griffiths, E. E., Blayney.
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 Guthridge, J. S., Murwillumbah.
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 Harris, L. H. L., Macquarie-st., Sydney.
 Harris, John, Elizabeth-st., Sydney.
 Harris, S. H., 60 Alberto Terrace, Darlinghurst.
 Harris, J. S.
 Harris, W. E., Armidale.
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 Harbison, J. W., West Maitland.
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 *Hinder, H. V. C., Ashfield.
 Hill, R. H., Tuncunwal.
 Hippley, P. L., Waverley.
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 Hodgson, C. R., Dulwich Hill.
 Hoets, A. K., 27 Poyce-street, Glebe.
 Hogg, Kate, Callan Park.
 Holmes, H. G., Warialda.
 Holt, A. C., Braidwood.
 *Hood, A. Jarvis, Macquarie-st., Sydney.
 Horsfall, A. H., Hamilton.
 Hosking, J. E. F., Deniliquin.
 Howley, E. J., Dudley.
 Howse, Neville R., Orange.
 Hughes, M. O'Gorman, "Melrose," Woolahra.
 Hughes, S. H., Macquarie-street, Sydney.
 Hull, Walter, Nowra.
 Hurst, George, Bathurst.
 Humphrey, E. M., Lismore.
 Irwin, W., Moree.
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 Jenkins, E. J., Macquarie-street, Sydney.
 Jenner, W. J., Leichhardt.
 Johnson, H. O., Parkes.
 Johnson, A. M., Elizabeth-street, Sydney.
 Jones, Lincoln, St. Vincent's Hospital.
 Jones, R. F., Samarai, British New Guinea.
 Jones, P. S., jun., Glebe.
 Jones, Sir Philip S., College-street, Sydney.
 Jones, R. H., Macquarie-street, Sydney.
 Jones, R. T., Ashfield.
 Jones, E. Tudor, Johnston-st., Annandale.
 Kane, F. W., Nowra.
 Kay, Stuart, 274 Glebe-road, Glebe Point.
 Kerr, W. B., Helensburgh.
 Kearney, C. J., Condobolin.
 Kelly, D., North Sydney.
 Kelly, J. J., Macquarie-street, Sydney.
 Kelly, W., Macquarie-street, Sydney.
 Kerma, P. J., 2 Lyons-terrace, Liverpool-street, Sydney.
 Kennedy, J. W., Hay.
 Kennedy, P., Albury.
 Kerr, John, Wollongong.
 Kerr, A. L., Granville.
 Kiernander, H. B., Q.V.M. P.O., Sydney.
 King, A. A., West Maitland.
 King, H. K., 196 Collins-street, Melbourne.
 Kingsbury, James, Marrickville.
 Kinross, R. M., Inverell.
 Kirkland, Hugh, Lithgow.
 Kirkland, T. S., Macquarie-street, Sydney.
 Kirkwood, John, Cooma.
 Knaggs, Samuel T., Liverpool-st., Sydney.
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 Lee, H. H., Wollongong.
 Lees, G. J., Adelong.
 Lamb, B., Wentworth Falls.
 Lester, C. E., Mudgee.
 Leitch, H. R., Cobar.
 Lethbridge, H. O., Royal Alexandra Children's Hospital, Camperdown.
 Le Fevre, J. S., Burrows.
 Levy, A. L., 233 Macquarie-street.
 Liddell, F., West Maitland.
 Lidwill, M. C., Berrig.
 Lipscomb, T. W., Leichhardt.
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 Ludwick, E., Cleveand-st., Redfern.
 Luker, Donald, College-street, Sydney.
 Lyden, Michael John, England.
 *MacCormick, Alex., Macquarie-st., Sydney.
 MacCulloch, Stanthorpe H., College-street, Sydney.
 Macdonald, W. C., Ingham, Queensland.
 Macchattie, Thomas Alfred, Bathurst.
 Macintosh, A. H., Cooma.
 Mackellar, the Hon. Charles Kinaird, M.L.C., Equitable Building, George-street, Sydney.
 Mackay, G. A., Innes, Lismore.
 Mackenzie, J. A., Tenterfield.
 Mackinnon, B. R. S., North Sydney.
 MacLaurin, the Hon. Sir Henry Normand, M.L.C., Macquarie-street, Sydney.
 MacLaurin, Charles, Macquarie-st., Sydney.
 MacLeod, Charles G., 16 College-st., Sydney.
 MacLennan, J. N. E., Young.
 MacMaster, J., Penrith.
 MacMaster, Donald, North Sydney.
 MacPherson, J., Young.
 Maffey, E. W. H., Singleton.
 Magnus, F. D., Macquarie-street, Sydney.
 Maguire, S., Neutral Bay.
 Maher, Chas. H., College-street, Sydney.
 Maher, W. Odillo, Macquarie-st., Sydney.
 Mahon, H. S., Sydney Hospital.
 Mullins, G. L., Liverpool-street, Sydney.
 Meares, H. L. D., Canowindra.
 Moncrieff, E. W., Wagga Wagga.
 McEnroe, James M., R.P.A. Hospital, Camperdown.
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 Marano, Vincenzo, Elizabeth-st., Sydney.
 Marks, H. W., Macquarie-street, Sydney.
 Marr, A. B., Forbes.
 Marshall, G. A., College-street, Sydney.
 Marshall, Hazlett H., 2 Lyons-terrace, Liverpool-street, Sydney.
 Marshall, Joseph, Bega.
 Martin, T. M., College-street, Sydney.
 Matthews, Thos., Nowra.
 Maw, H. S.
 Mawson, Wm., Gundagai.
 McCarthy, Marham A. Beckett, Greytown, New Zealand.
 McClelland, W. C., Newtown.
 McCredie, J. L. M., Gungah.
 McCredie, R. W., Picton.
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 McKillop, R., Goulburn.
 McLeod, James, Hurstville.
 McLeod, James, Rockdale.
 McMaster, R. D., Goulburn.
 McMurray, Wahab, 2 Lyons-terrace, Liverpool-street, Sydney.
 Meredith, J. B., Raymond Terrace.
 Meke, A. H., Candeelo.
 Menzies, G. D., Drummoyne.
 Michell, R. T., Walsend.
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 Miles, G. E., Rydalmere.
 Millard, R. J., Board of Health, Sydney.
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 Moffitt, J. E., Northampton, W.A.

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 Müller, O. P. H., Lismore.
 Müller, C. A., Elizabeth-street, Sydney.
 Munro, A. Watson, Liverpool-st., Sydney.
 Munro, W. J., Macquarie-street, Sydney.
 Muscio, A., Emmaville.
 Muskett, Philip Edward, 143 Elizabeth-street, Sydney.
 Nankervis, A. W., Tamworth.
 Nash, Hon. J. B., M.L.C., Macquarie-street, Sydney.
 Neale, Alfred, Elizabeth-street, Sydney.
 *Newmarch, Bernard James, North Sydney.
 Neumann, E., Wollumb.
 Newton, W. G. T., Merewether.
 Nickson, W. J. R., Newcastle.
 Nolan, H. R., Macquarie-street, Sydney.
 Norrie, Andrew, Liverpool-street, Sydney.
 Obohn, H. W., Kangaroo Valley.
 Oliver, W. E., Chatswood.
 Olvey, W. J., Braidwood.
 O'Connor, A., Woonona.
 O'Hara, A. A., Baywater-rd., Darlinghurst.
 O'Keefe, J. J., Kogarah.
 O'Neill, Gregory L., College-street, Sydney.
 Oran, Arthur M., Macquarie-st., Sydney.
 Osborne, J. K., Women's Hospital, Surry Hills.
 O'Reilly, Walter W. Joseph, Liverpool-street, Sydney.
 Page, E., South Grafton.
 Palmer, A. A., Elizabeth-street, Sydney.
 Palmer, Charles, Sydney Hospital.
 Park, A. J., Narrabri.
 Park, Joseph.
 Parker, Arthur Frederick, Lismore.
 Parker, Joseph, Blackheath.
 Parramoon, G. W.
 Parry, L., Davenport, Picton.
 Paton, J. Scott, Dandey.
 Paton, Robert Thompson, Dawes Point, Sydney.
 Pawlett, T. L., Crookwell.
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 Pentland, Alex., Singleton.
 Perkins, A. E., Marrickville.
 Phipps, J. H., Mosman.
 Pirie, J., Liverpool.
 *Pockley, F. Antill, Macquarie-st. Sydney.
 Pockley, Eric, Summer Hill.
 Pope, R. J., Macquarie-street, Sydney.
 Purser, Cecil, Lewisham.
 Pym, C. B., Penrith.
 Quaife, Frederick Harrison, Wollahra.
 Read, W. H., Macquarie-street, Sydney.
 Read, Clarence, Chatswood.
 Read, George, Watson's Bay.
 Reading, Richard Fairfax, 161 Macquarie-street, Sydney.
 Rees, W. Llewellyn, 484 Castlereagh-street, Sydney.
 Reddall, O. H., Randwick.
 Reisch, J., Molog.
 Reid, C. W., Watson's Bay.
 *Reunio, G. E., Macquarie-street, Sydney.
 Rice, H. E., Lithgow.
 Roberts, S., R.P.A. Hosp., Camperdown.
 Roberts, L. W., Cowra.
 Robertson, Alex., Tarawa, Gilbert Islands.
 Robertson, L. J., Corral.
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 Roseby, E. R., Marrickville.
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 Ross, A. W., Wee Wee.
 Ross, C., Macquarie-street, Sydney.
 Roth, R. E., D.S.O., Liverpool-st., Sydney.
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 Rutherford, A. H., Casino.
 Rygate, R., Marrickville.
 Sadler, H. F., Kurri Kurri.
 Salter, A. E., Homebush.
 Samuelson, G. S., Bangalow, R.R.
 Sanders, F. P., City-road, Sydney.
 Saunders, J. H., Box 1511, G.P.O.
 Sawkins, F. J. T., Elizabeth-st., Sydney.
 Savage, V. W., "Murog," Waverley.
 Schalit, M. A., Delegate.
 Schutte, R., Merriwa.
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 Scott, C. H., Armidale.
 Scott, H. J. H., Bome.
 Scott Skirring, R., Elizabeth-st., Sydney.
 Scott Louis Warburton

Shand, J. Capple, North Sydney.
 Sharp, W. Ramsay, Candeelo.
 Shaw, F. C. S., Wyalong.
 Sheldon, S., Macquarie-street, Sydney.
 Sheldon, H., Grahville.
 Sheldhear, Cyril, Wyalong.
 Shaw, S. S., Balmain.
 Short, W., Corowa.
 Sinclair, Eric, Wollumb.
 Sinclair, W. M., Wentworth Falls.
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 Smith, S. A., Glebe-road, Glebe.
 Smith, F. E. W., R.P.A. Hosp., Camperdown.
 Smith, V. A., Grafton.
 Smith, W. G. C., Ryde.
 Spark, John, Katoomba.
 Spencer, Walter, Edgeware-road, Kamore.
 Sproule, Wm., Murrumbidgee.
 Stacy, H. S., College-street, Sydney.
 Stanley, G. P., Tamworth.
 Stephens, E. H. M., Ashfield.
 Stephens, H. Z., Casino.
 Stephens, Samuel, Wollahra.
 Stevenson, F. C., Moss Vale.
 Stoker, H., Wagga Wagga.
 Stokes, Edward B., W. & S. Board, Sydney.
 Stuart, Thomas Peter Anderson, Professor, Wollahra.
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 Tange, F. S., Mooma.
 Terrey, Hedley, Kilmara.
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 Thane, P. T., Yass.
 Thomas, G. B., Ashfield.
 Thomas, David, Manly.
 Thompson, J. Ashburton, Health Department, Sydney.
 Throsby, H., Bowral.
 Thring, E. T., Macquarie-street, Sydney.
 Tidwell, Frank, Health Department, Sydney.
 Tilley, W. J., Lismore.
 *Todd, Robert H., Phillip-street, Sydney.
 Tomlins, W. H., Altonville, R.R.
 Tomlinson, W. R., Narramine.
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 Trindall, Richard B., Newtown.
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 Valles, Louis, Inverell.
 Vaise, Arthur John, Tempe, Cook's River.
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 Vernon, Murray A., Tingha.
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 Wade, E. B., Stanmore-road, Sydney.
 Walsh, C. C., Corowa.
 Walker-Smith, J., Glebe.
 Walley, T. B., Tamworth.
 Wall, A. Percy, Randwick.
 Wallace, D., Coast Hospital, Little Bay.
 Warren, H. Guy, Macquarie-st., Sydney.
 Watt, G., Orange.
 Watkins, B. C., Katoomba.
 Watson, Charles Russell, Newtown.
 Watson, J. W., Gernantown.
 Welsh, D. A., Professor, Sydney University.
 Welch, T. V., River-rd., North Sydney.
 Wagh, E. A., Parramatta.
 West, F. W., Camden.
 Wigan, George, Armidale.
 Wilkinson, W. Caspar, Macquarie-street, Sydney.
 Will, A. Murray, Macquarie-st., Sydney.
 Williams, F. B., Hinton.
 Willis, H. L., Walgett.
 Willis, S. C. (travelling).
 Wilson, J. H., Murrumbidgee.
 Wilson, J. T., Professor, Sydney University.
 Windyver, J. C., College-street, Sydney.
 Wherrett, E. A. R., North Shore Hospital, North Sydney.
 Wood, Percy Moore, Liverpool-rd., Ashfield.
 Woods, William Cleaver, Albany.
 Woodward, G. P., 51 Phillip-st., Sydney.
 Woodward, E. A., Arnciffe.
 *Worrall, Ralph, Macquarie-st., Sydney.
 Wright, T. N., Stroud.
 Wrigley, F. H., Glen Innes.
 Wunderlich, D. F., Redfern.
 Young, H. C. Taylor, Macquarie-st., Sydney.
 Young, R. W., Milton.
 Zlotkowski, F., 201 Macquarie-st., Sydney.

AUSTRALASIAN MEDICAL GAZETTE

No. 306.

SYDNEY, MARCH 20TH, 1907.

VOL. XXVI., No. 3.

SOME PHASES OF INSANITY IN RELATION TO CRIME.

Presidential Address delivered before the Ballarat Branch of the British Medical Association.

By John Steell, M.B., Ch.M., L.R.C.P., R.C.S. (Edin.),
M.P.C., Ballarat, Retiring President.

MAY I crave your attention for a short space of time to listen to a few words regarding a subject which I trust will be of interest to you all. The subject that I have chosen after careful consideration I have entitled "Some Phases of Insanity in Relation to Crime," and in writing this short treatise I have endeavoured as far as possible to avoid the realm of specialism, and to make my address of interest to the man in active general practice.

I will now state briefly the phases of insanity to which I intend to refer and which supply the largest number of our criminal insane and insane criminals, but before doing so I would remind you that some authorities are of the opinion that only certain crimes are committed in given mental states, e.g., crimes of acquisitiveness in general paralysis, crimes of violence in epilepsy, etc.; this is a matter, to my mind, that still lacks proof and should remain at the present time *sub judice*. The phases that I intend to refer to in this paper are mania, melancholia, alcoholic insanity, general paralysis of the insane, epileptic insanity, and puerperal insanity. Criminal acts may arise from loss of control, delusion, impulse, or delirium, and the first thing to consider in connection with this matter is the criminal mind. There is no doubt that heredity plays a large part in the development of the criminal mind, and that a large amount of crime is committed by imitation. According to Dr. Maurice de Fleury a large number of criminals come from parents who have certain taints, e.g., drunkards, tuberculous and syphilitic persons, and some who have suffered from severe infectious maladies. The children of the above are neurotic, impulsive, ill-balanced, ill-disposed beings, even when removed from bad homes and surroundings, a procedure which is permitted in France. Some of these children suffer from neurasthenia with its

great sudden oscillations from depression to anger, from timidity to daring; others are hysterical subjects readily affected by fixed idea, by contraction of the field of consciousness, maladies of memory by oblivion to everything else except the tempting object. Some are merely absent, melancholic, lazy or choleric, certain more seriously ailing or epileptic. In the adult criminal, especially in homicidal mania, frequently the individual has a vague craving to murder, and it is curious to note in connection with this form of insanity that in some cases the persons have previously attempted to commit suicide. One of the most difficult types of insanity, in which murder particularly is often committed, is the so-called moral insanity, in which apparently the individual is impelled by some impulse to commit the deed; as a rule this type of insanity is not recognised in law courts, unless the person committing the deed has some alteration in the intellectual qualities as well as the paroxysmal tendency.

In some cases of pregnant women it has been noted that they are prone to murder, or in other cases to steal articles. Undoubtedly those cases indicate some form of mental aberration, but as these actions are occasionally complex it is at times difficult to convince the Court in event of trial of the irresponsibility of the individual.

With the desire to kill occurs in a certain class, a fiendish delight to torture the individual in various ways, such cases being capable of intricate mental thought, and an example of this was well borne out in a case tried in New York some years ago, where a man possessed of considerable means built a house with certain well-fitted rooms in the basement; these rooms had subterranean passages leading into them and were beautifully furnished. The treatment of victims was lavish in the extreme until the criminal desired to put an end to his victim, when he quietly strangled her, for his victims were mostly young women and girls, and buried the bodies. In one instance he starved a girl to death, and her skeleton was afterwards found in one of the basement rooms. Another of the victims, a man in a good position, he treated in a sumptuous manner,

until he got him intoxicated, soaked his clothing in petroleum and set fire to it. In all he killed some twenty persons. Ultimately this man was discovered, brought to trial and executed, although, from a psychological point of view, he did not appear to be altogether responsible for his actions.

On similar lines was the case of Vacher, who killed some dozen or so shepherds and shepherdesses, but his actions were apparently associated with sexual desire, and in a large measure resembled those of the English Jack the Ripper, except that his victims were of both sexes.

As regards the question of age in connection with the variety of crime committed, it has been frequently noted that the desire to burn occurs at the periods of puberty and adolescence, and sometimes during the puerperal period.

Cases are on record where poisoning has been used by an insane individual for his or her object. This indicates, as I have previously said, a complex working of the mental mechanism, for example, where a woman poisoned three of her children during the lactational period, in another case where she poisoned her child due to delusion. One case is quoted in Taylor's Jurisprudence where a woman poisoned several little boys by giving them poisoned sweets. This was probably a sexual case, but serves to show the complexity and variety of actions of those mentally afflicted criminals.

ALCOHOLISM.

I will now pass on to the subject of insanity caused by alcoholic poisoning, and in this it is interesting to note that it does not follow that because an individual is a drunkard some of his family must necessarily be so. This contention, according to Reid, has been well borne out in the Italian and Spanish races, who have had an opportunity of drinking for thousands of years, but it is to be noted that the craving and disastrous results is most marked in those who have not had the chance of doing so. A man from a temperate climate going to the tropics drinking much alcohol develops liver disease, and early death follows; in each debauch the drunkenness is less marked, the alcohol being more rapidly evaporated and excreted. In the Arctic regions alcoholic excess causes rapid drunkenness, and exposure to the open air is very fatal, yet internal organic diseases are not very noticeable.

Dr. Norman Kerr states that warm southern climates do not show so much inebriety or so many dipsomaniacs as cold northern lands, yet temperate Italians emigrating from Italy to London often become drunkards. Special drink of the country does less harm to natives than imported drinks. Adulterations are very deadly environments of work, and social life potent causes of drunkenness. Certain occupations tend to make men drink and foster inebriety, as, for example, those involving great changes of temperature, such as that experienced by stokers in various classes of work, and also those exposed to dust, as knife-grinders; others working in badly ventilated rooms, such as compositors; work that for a time is very hard and then interchanging with periods of idleness, as seen in dock labourers; and exposure to inclement weather. All these occupations assist in making drunkards. One curious phase that should be noted in connection with chronic alcoholism in relation to the female sex is that of women who kill themselves by excesses or by suicide, the majority are childless. A return from some of the American inebriate retreats indicates that the proportion of males to females is about five to one. The general age at about which alcoholism begins to develop is between 30 and 40 years. Smoking makes no appreciable difference in the production of drunkenness.

In chronic alcoholism the form of crimes generally committed are of a suicidal or homicidal nature; in a lesser degree there are crimes due to impulse, occasionally certain forms of sexual acts, especially defilement of children. Offences of an acquisitive nature are not very importantly related to this. In dealing with this form of mental aberration it should be borne in mind that a person when drunk may commit a crime of great violence.

I will now pass on to discuss in connection with alcoholism the person who commits what might be termed alcoholic homicide. In these cases one marked feature is generally present, namely, the absence of motive, frequently also the perpetrator attempts to take his own life, and yet there remains on the patient's mind afterwards no trace of the reason why he committed the deed. From the purely automatic form of homicide there are varying degrees up to those in which the provocation may very nearly approach homicide committed by the relatively normal non-intoxicated criminal.

The question of motive is now one worthy of consideration. In one case an alcoholic may commit a murder due to delusion. He commits the act in a condition of fairly lucid consciousness and defends his action on the grounds of his belief in the delusion. Another individual may commit exactly the same crime in an automatic manner and will be quite unable to assign the reason for it.

In connection with the latter case it frequently happens that the individual, although having no delusion at the time of the act or soon after develops ideas which, had he held them before committing the crime, would have been taken as indicating a motive.

Two cases are cited by W. C. Sullivan, M.D., of Pentonville, in which the prisoners having committed the crimes of wife murder, in an obscure state of consciousness manifested some time afterwards ideas in the one case of poisoning, in the other case of marital infidelity justifying their actions on these grounds.

In dealing with a case of alcoholic homicide the chronicity of the alcoholic poisoning is an important factor to be taken into consideration in the case.

The subject of suicide, or attempted suicide, is another point worthy of investigation. As a rule where the homicidal act is determined by environmental stimulus there is less likelihood of the individual committing suicide, but where the environment factor is insignificant the coincidence of suicidal impulse is frequent.

The remaining points in alcoholic homicide worthy of note, which are characteristic, are the special expression of the impulse, the victim against whom it is directed and the weapon by which it is executed. In a large majority of cases of this class the victim is the wife or mistress of the murderer. This sexual relationship occurred in 24 out of the 36 cases recorded recently by Dr. Sullivan. Consonant with the impulsive nature of the crime, the weapons used were either articles of ordinary domestic use or tools of trade of the murderer.

In connection with this matter it would be as well to take for a short time into consideration other toxic temperaments; for instance, in chronic lead poisoning dementia and depression are the basis of the mental state. Tanquerel de Planches points out the extreme irritability, saturnine patients who on the slightest provocation burst into maniacal frenzy: their melancholic attacks with suicidal

and destructive impulses, visual hallucinations and following amnesia are exact counterparts of alcoholic delirium. In chronic ptyalism Kussmaul says that mercury invariably depresses the emotional tone and renders the patient sad; it excites painful visual hallucinations and sometimes leads to true *raptus melancholicus*.

In Italian leprosy (Pellegra) the main symptoms occur in the advanced stages of this disease, and Dr. Gorbets states there is a marked tendency to suicidal and homicidal acts. Roussell has pointed out in connection with the suicide of the pellagrins that it takes place in a semi-unconscious condition. Sullivan points out, in relation to this matter, that all these poisonings have the same impulse to suicide and to suicide under similar appearances, and in all there is the impulse to violence and homicide.

To sum up finally in connection with the cause of crime in this form of insanity:—1st. Crime committed in a state of actual drunkenness. The perpetrator remembers nothing: visceral disorders, transitory or permanent, have laid the foundation of a new nature. Acute intoxication is required before the crime. 2nd. Organic stimuli become more articulate, memory of act is clearer; motives still obscure, for example, the perpetrator states that something comes over him. 3rd. Definite delusion determined by (a) antecedents of individual; (b) circumstances of environment; (c) possibly by some obscurely specific character in visceral sensations; for example, a dyspeptic drunkard suspects poison in his food, and an impotent drunkard distrusts the honour of his wife.

EPILEPTIC INSANITY.

The next type of insanity that I would bring under your notice is that committed with epilepsy. Epilepsy may be defined as a functional degenerative syndrome, which takes more or less one or other of the following forms:—Motor, sensory or psychic (intellectual or emotional) convulsions according to the character of the individual in whom it is manifested. Ottolenghi found that out of 265 criminals 80 were epileptic. Clouston says that epileptic insanity is more often the cause of murder than any other form of insanity except alcoholic, delusional insanity coming next. This statement is challenged by Dr. Baker, of Broadmore, who holds that systematised delusion comes first. When an epileptic tends to have sound sleep and prolonged rest after the epileptic seizures it is noticeable that he is less likely to become

very violent. It has been noted also, in cases which have a suspicion before the onset of the seizure of epilepsy, that after it has taken place the suspicion is present with maniacal intensity. In many of the homicidal epileptic acts consciousness is retained, and memory is not obliterated, at any rate not immediately, although subsequently it may be. The retention of consciousness and even of memory is perhaps most frequently seen in those cases in which there exists a pre-epileptic condition of suspicion or smouldering hatred, fanned into the brightest intensity in the post-epileptic stage. In epileptic insanity consciousness and memory are not inconsistent with epileptic furor. It must also be borne in mind that frequently the pre-epileptic idea contains no malice or suspicion, but that the post-epileptic is a criminal act. Baker, of Broadmore, cites a case where a man proceeding along a road to kill a pig had an epileptic seizure, and meeting his little daughter killed her with the slaughtering knife he carried. Authorities have noted, in connection with the question of malice and suspicion, that where malice and suspicion are present in the pre-epileptic stage the result was conscious criminal acts without loss of memory; where suspicion and malice were absent unconsciousness and therefore amnesia prevailed. The accidental or occasional criminal rarely confesses his crime, although he may state the attendant circumstances leading up to it. Mental derangement taking the place of epilepsy usually assumes a form of chronic insanity; this change, as a rule, occurs at the termination of the reproductive period.

In connection with the subject of epilepsy, it might be of interest if I quote some of the details of two cases which somewhat resembled that disease. The first case, recorded by Dr. Rainsford, superintendent of the Stuart Institution, Dublin, is of a boy 13½ years of age, who was sent to the imbecile department of the institution as having developed epilepsy. On examination, the boy was found to be a small, badly grown individual with an abnormally old face for his years; he was self-centred and anxious to tell all his ailments. His father informed the authorities at the institution that he had been in several hospitals, and that he took fits of great severity generally at night, and that he always insisted upon being strapped in bed. In all the hospitals in which he had been detained he led the authorities and

patients such a life that they would not keep him. The family history of the patient was that his father had drunk heavily and that he had been poorly fed. The first day after admission he was reported to have had a fit, and on the third day he had another, in which Dr. Rainsford saw him with his bellyband on, and was satisfied that the fit was not epileptic; he was accordingly threatened with a bucket of cold water. He shortly after had another fit and the bucket of cold water was produced. He immediately recovered from the fit and never had another, being discharged from the institution cured and afterwards going into an office and doing well.

The next case is one that came under my own personal observation. This lad killed a girl; his family history, which was somewhat difficult to obtain, indicated that he had been troublesome all his life and subject to fits of violent temper, also some other mysterious fits, especially after a drinking bout. On inspection I found him to be fairly well nourished, but somewhat stunted in growth; his forehead was rather prominent, otherwise his condition was fairly normal. This youth was reported to take terribly bad fits, presumed to be epileptic, but I never had the good fortune to see him in one. He fell about, writhed, and roared, throwing his arms wildly around, and kicking his legs in all directions. After a time he would recover, being quite conscious and able to converse on any subject within his knowledge. The points of interest in this case are these:—He always took a fit where he could be seen or heard, he never bit his tongue at any time, he never had a bruise or mark on his body or limbs, even on one occasion when he was reported to have taken a fit and fallen down a flight of stairs consisting of four stone steps, and almost immediately after such attack he was able to talk to me in a rational manner on different subjects. This patient's fits were undoubtedly of a hysterical character, and he was rightly found guilty of murder and held responsible for his actions.

GENERAL PARALYSIS OF THE INSANE.

We will now pass on to consider the criminal acts committed in connection with the mental disorder known as general paralysis of the insane. The usual forms of crime committed in this disease are those of acquisitiveness, petty larceny being the commonest, but frauds, forging and embezzlement are also fairly frequent. In some instances complex highway robberies have been

arranged and carried out by a person suffering from general paralysis; one instance being recorded where a man so suffering entered a railway carriage, where there were a number of passengers, armed with a dagger, and robbed them all, getting clear away at the time, but being afterwards captured and incarcerated in a hospital for the insane.

It has been noted in some cases of general paralysis where the person has been engaged in clerical work in an office that serious blunders having occurred in his accounts, he had embezzled during his lucid intervals to make good the deficit.

Suicide is not uncommon in the initial stage of general paralysis, but it is very rare in the last stage, and in some cases recorded the suicidal attempts have been liable to arrest. In the early stage of general paralysis sexual excitement is sometimes very marked and may lead to all classes of criminal acts connected with such excitement, rape, defilement of children, etc.

Several instances have been recorded in which the person suffering from general paralysis of the melancholic type has been found guilty of defilement of children. This is particularly interesting in view of its being the same class of crime committed by men suffering from chronic alcoholism and senility, and if this be definitely proved it shows a striking correspondence between the three diseases. Acts of acquisitiveness by general paralytics generally occur in the optimistic form: acts of violence to self and others in the melancholic form. Sullivan has pointed out that the melancholic type of general paralytic usually has visceral disease present, and that a large number of these patients are tuberculous, and that the cause of suicide is generally a sense of mental incapacity.

Suicidal acts in a large number of cases are due to gloomy forecast, morbid reasoning, persecutory delusions and commanding hallucinations; compelled acts depending on enforced ideas, usually foreseen and decided, and in some cases these instil a feeling of horror into the patient's mind.

In relation to the general paralytics' thieving tendencies, Baker points out that they may in a great measure depend on the reversion by a process of dissolution to the acquisitive propensities so common a feature in the mental activity of childhood.

PUERPERAL INSANITY.

We now come to the class of crimes in

peral period, but before doing so I would like to bring under your notice two tables compiled by Baker, of Broadmore. The first is a comparison of "brain weights."

Normal female brain	.. 44 oz. or 1247 grammes
Homicidal female lunatics	.. .. 1190 "
Female lunatic criminals	.. .. 1120 "

showing a deficiency of 57 and 127 grammes respectively.

Criminal lunatics are defined as persons found guilty of certain crimes or misdemeanours and acquitted on the ground of insanity. These are imprisoned not with a view to punishment, but for the safety of the public at large.

Lunatic criminals.—These are convicts and felons who during their term of imprisonment or penal servitude display symptoms of mental derangement. This latter class, according to returns, has considerably diminished within recent years, which is certainly of advantage to the wards in which they are detained, for they are a most troublesome class of patients to deal with, always creating a disturbance or fighting with each other. Larceny is the crime for which these women are most frequently tried, but there are also recorded cases of arson, housebreaking, robbery and false pretences. On comparing statistical tables it has been found that a large number of these convicts become insane at the climacteric period, and that the most common form of mental disorder among them is delusional mania. The crimes which are committed by criminal lunatics are generally crimes of violence, such as murder, manslaughter, and attempted murder; in some cases, however, assaults have been committed and suicidal attempts made.

In connection with the question of infanticide it has been found that cases of this kind are much more common in lactational than in puerperal insanity. Baker gives the following table from the records at Broadmore:

Infanticide in the insanity of pregnancy	5 per cent.
" " puerperal insanity	35 "
" " insanity of lactation	60 "

It is a curious fact that has been frequently noted that the disposition to steal amongst pregnant women is by no means uncommon. The gravity of the mental symptoms in puerperal insanity may be gauged by the fact that out of 20 cases committed to Broadmore Criminal Hospital for the Insane for the crime of infanticide 12 were discharged within a very short space of time. As regards the method of murder associated with the puerperal period it has been found that

in the early acute delirious stage it is generally of an extremely violent character, such, for example, as dashing the child's brains out or throwing it on a fire, the more deliberate acts, such as poisoning and drowning being reserved for the later usually melancholic stage.

Suicide, completed, attempted or contemplated almost always accompanies infanticide. Age has a great influence on the recovery, etc., of the puerperal insanity cases, the highest percentage of recovery being among young women. In these homicidal cases associated with mental disease during the puerperal period.

Baker advises that the following points should be carefully considered before giving a prognosis:—(1) The age of the patient. The older the patient the less chance of recovery. (2) The number of children. When a woman has been exhausted and run down by frequent pregnancies prognosis is unfavourable. (3) Previous attacks of insanity. (4) Hereditary pre-disposition. (5) Complications of epilepsy. (6) Whether the patient be married or single. The child or children being legitimate or not. It is a curious fact that some women kill their children at the climacteric period, but it has generally been noted in these cases that the patients have been addicted to the frequent use of alcohol.

In concluding this subject of my dissertation, I might state that measurements taken at the St. Quentin prison show that classified according to their offences, thieves' heads are the widest, erotics narrowest, cephalic index in erotics 79, thieves 80.5, murderers 83.5. Also that in many parts of Europe sexual offences are associated with fair hair and blue eyes.

I trust, gentlemen, that I have not trespassed too much on your time and patience, and sincerely hope that my subject thus briefly stated has been of interest to you all, but finally I would like to draw your attention to some of the matters which have been suggested by Dr. Maurice de Fleury as a probable evolution to the repression of crime in France:—(1) Specialisation of criminal magistrate; (2) reorganisation of the Assize Court (according to M. Cripps); (3) admission of medico-legal expert practice, psychological study of accused persons and of the genesis of their crime be made more frequent; (4) the creation of hospital prisons for the insane criminals or great neuropaths; (5)

the widest possible application of the Berenger Law or of the modern prisons system to delinquents who seem capable of amelioration and to criminals by accident; on the other hand, increased severity to recidivists and criminals by temperament; (6) capital punishment to be made more frequent and less terrible.

ECHINOCOCCUS ALVEOLARIS.

By E. Angas Johnson, M.D., Ch.D., M.R.C.S. (Eng.),
Assistant Physician, Adelaide Hospital,
Adelaide.

THERE are two forms of echinococcus disease, viz.:—1. The *hydatidose*, or ordinary form, due to the *tænia echinococcus* of v. Siebold. 2. The *alveolar*, or *multilocular* form, due to an allied *tænia*—the *tænia echinococcus alveolaris* of Posselt. (Fig. 1.) 1. The *hydatidose*, with which we in Australia are familiar, has a geographical distribution which ranges from Iceland to Tasmania, but is endemic only in countries where sheep-raising is a prime industry, and is absent or merely sporadic in others—e.g., Egypt (Madden) and the Philippines (R. H. Strong). The sheep maintains the supply of scolices, the dog being no more than the principal complementary factor as host for the sexual worm of the *tænia echinococcus* of von Siebold. The variations of the *hydatidose* form, frequently confused with those of the *alveolar* or *multilocular*, are (a) the *pouched*, (b) the *polycystic*.

(a) *The pouched*, saccated or racemose, is commonly met with in sheep, in which the capsule retains a chitinous lining in all its contours. (Fig. 2.)

(b) *The polycystic*, in which unbroken continuity of the chitin lining no longer obtains, possesses (1) either one tough pouched capsule which is tightly packed with small vesicles from the size of a pin's head to a small marble, as in old omental cysts. (Fig. 3.); (or 2) there is a corresponding plurality of capsules sometimes of extreme tenuity, as in hydatids, in the cancellous tissue of bone. In the *polycystic* the multiplicity of cysts is probably more often due to a collective implantation of scolices than of an invasion by embryos, as is usually believed.

The size, shape, and manner of reproduction of the *hydatid* cyst vary according to the species of animal which serves as the intermediate host, and also with the



FIG. 1.—Section surface of *Echinococcus Alveolaris* of the Liver. (Man.)

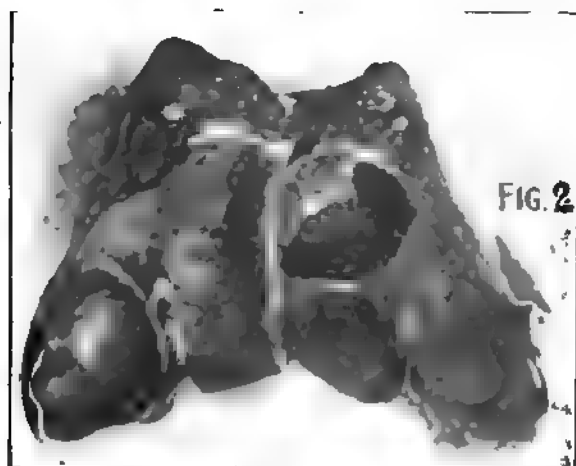


FIG. 2.—*Echinococcus Hydatiloe*. Pouchet variety. sheep's lung.

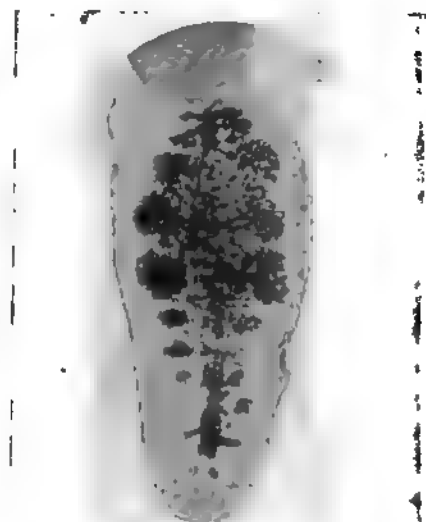


FIG. 3.—*Tenuis Echinococcus Cysticus* of von Siebold.

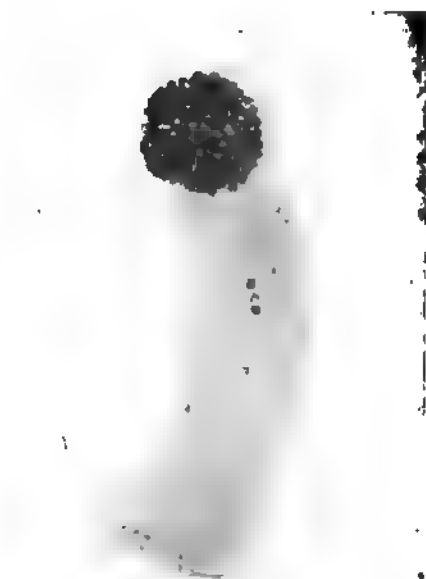


FIG. 4.—*Tenuis Echinococcus Alveolaris* of Posselt.

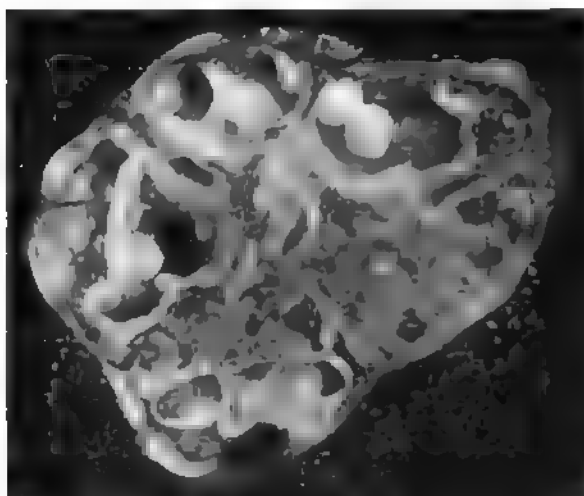


FIG. 3.—*Echinococcus Hydatidose*. Polycystic type. (Omental, man)

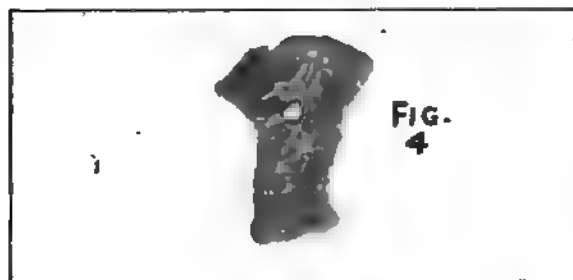


FIG. 4.—*Echinococcus Alveolaris*. Natural size. The pin's head is an index to the size of the vesicles.

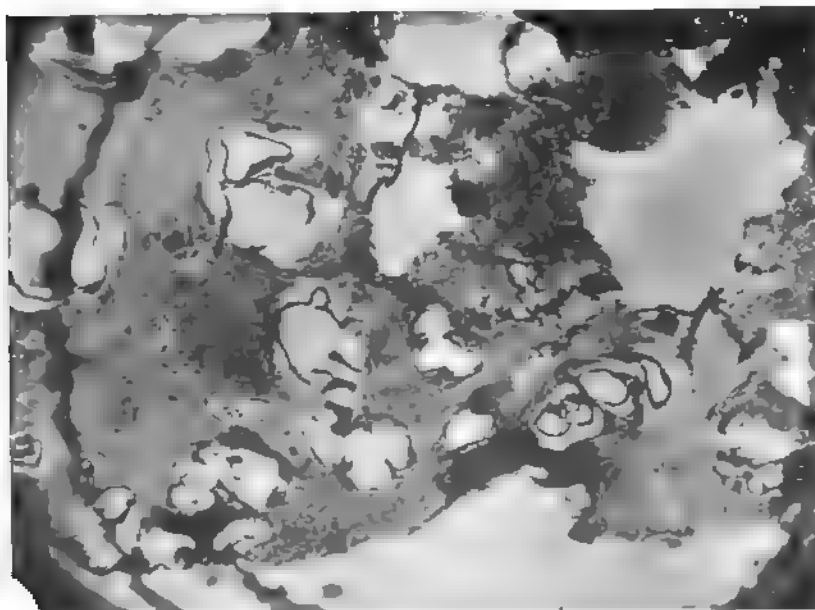


FIG. 7.—Microscopic photo. of the *Echinococcus Alveolaris*. $\times 25$

special characters of the surrounding tissues—*e.g.*, in sheep, visceral hydatids (*i.e.*, those of the lung and liver) do not attain the large proportion and spherical expansion as similar ones in homo, but are usually beaded and prone to calcification.

2. *The Echinococcus Alveolaris* (Fig. 4). Since the hydatidose form produces multilocular cysts as above (*a* and *b*), which have nothing in common with the true alveolar except that they are many-chambered, it would be well to discard the term multilocular and retain the term alveolar. It is absurd to regard multilocular and alveolar as synonymous, as has been done in the past. So far as I can ascertain, if the alveolar echinococcus has been met with in Australia, it at all events has not been described. In tropical Australia, where cattle take the place of sheep, I do not deny future investigators the possibility of proving its existence. (The tick was introduced into Australia and worked dire results amongst the herds before its true nature was established. So, too, may rinderpest and trypanosomes do likewise. Even Virchow 30 years after he had discovered the zoo-parasitic origin of the echinococcus alveolaris regarded the cysticercoid form in cancellous bone as identical.)

The geographical distribution is restricted to two well-defined areas—(Posselt) *a.* S. Germany, the Swiss and Austrian Alps; (Melnikow) *b.* Moscow and Kasan districts of Russia, including W. Siberia.

Posselt states that after having carefully collected the statistics of his predecessors on this subject, he has analysed 265 cases in all. These include his own in the Austrian Alps and those of Melnikow in Russia. They

are as follows :—Bavaria, 63 ; Switzerland, 35 ; Wurtemberg, 32 ; Baden, 5 ; Tyrol, 27 ; Kärnten, 4 ; Steiermark, 10 ; Eastern Alps, 2 ; Russia with Kasan as a centre, 70 ; not specified, 17. Sheep appear to play no part in the distribution of alveolar echinococcus disease, since in the Alpine regions, where it is endemic, only cattle are reared. An ordinary tourist is at once struck by the insanitary arrangements of the poor peasants. The cattle are bred and housed during the long winter in shelters which correspond to the ground floor of their dwellings, whilst in the loft above sleep the peasant and his family, this being due to protect themselves against the extreme cold. This alpine homestead, and especially the meadow path (weidegang) or cattle tracks favour the infection. The exact method is unknown ; it may be an auto-infection, or some of the numerous parasites that abound may be the intermediate hosts. (We have just lately learnt that a bug is the intermediate host of leprosy.)

History.—First noticed by Ruysch in 1721. In 1852 Buhl called it alveolar colloid, and still later in the same year Luschka noted it as a colloid cancer. In 1854 Zeller found hooklets, but failed to connect them with the tumour. In 1856 Virchow correlated the hooklets with its helminthic origin, but on account of its cancer-like structure named it very appropriately "Multilocular ulcerating echinococcus tumour," but later he dropped the term "ulcerating," but retained the multilocular. Twenty-seven years later (1883) Virchow reiterated his belief in the identity of the tænia with *T. echinococcus*. *a.* Virchow attributed the peculiar alveolar characteristics, to the embryo having come to rest in a lymphatic vessel. (It causes a cholangitis necrotica, and then chitinous processes are thrown out by the parasites which invade the surrounding tissues.) *b.* Leuckart attributes a similar rôle to the blood vessels. *c.* Frierichs to the bile ducts. *d.* Liebermeister to all three kinds of vessels. Virchow's teaching, which held the unity of species of the parasite, the monoist theory, having held sway for 50 years until recently, when doubts arose as to this unity of the two species of parasite. So it is highly satisfactory, however, that after these 50 years of *in statu quo* that two such competent observers as Posselt and Melnikow should have given this subject increased and intelligent study ; moreover,

they challenge the monoist theory and teach that there are two true larval species of parasite. The dualistic theory. The dualists based their disbelief as regards the unity of the parasites on the following grounds, which are not always identical. Muller proved as the results of feeding experiments that the tænia was different ; in the alveolar echinococcus the eggs are bunched at one end. Mangold produced alveolar growths the size of a hazel nut in two young pigs. Posselt conducted the following feeding experiments : He took two puppies just weaned from their mother, cleared out their intestinal tracts with *ol. filicis mas*, *ext. punic. grana.* and *ol. ricinis* (so as to remove any possible source of error in the experiment). Having carefully examined the stools for parasites or their eggs, and obtained a negative result, he then fed them with a portion of an alveolar echinococcus tumour from a man's liver, which contained scolices in abundance ; 45 days later the puppies were very weak from the very severe enteritis which occurred, dying four days later.

At the necroscopy numerous tænia, 2 to $2\frac{1}{2}$ m.m., very rarely 3 m.m., were seen in the small intestine. Macroscopically, one could distinguish in the terminal segment a chalk-like looking mass, the so-called "egg-balls."

As regards the difference in the two tæniæ, I append a table for contrasting them,

Fig. 5.—*Tænia Echinococcus Cysticus* : Length, 2-6 millimetres, usually 4-6. Neck and front segments, not so plump or broad ; end segment, thickness 3.5-4.5 m.m. Uterus is smaller, spiral shaped, broad laterally, and extends the total length of the segment, and is crowded with eggs. The hooks of the scolices and tænia, plumper in build and more sharply curved. Short terminal root processes. The relation between the length of their root processes to the total length of the hooks is in the scolex 1.46, in the tænia 1.48 ; both together as a coarse average 1.47.

Fig. 6.—*Tænia Echinococcus Alveolaris* : Length $2\frac{1}{2}$, very rarely 3 m.m. Neck and front segments plumper and broader. End segment 1.5-3.5 m.m. thick. Uterus at anterior extremity of end segment is round or very slightly square shaped ; the eggs are compressed together into this ball. The hooks of the scolices and tæniæ are more slender, not so much curved, with a conspicuously long, slender root process, which

usually has a nob on its end. The relation between the length of the root processes to the total length of the hooks is in the scolex 1·27, in the tenia 1·35; as a coarse average both together 1·25.

The two *tæniæ* are very similar in appearance. Posselt says the alveolar is thicker in the neck segments. As I have several specimens of each variety I am not able to entirely satisfy myself, as a great deal depends on whether the specimen was "fixed" in an extended or contracted condition.

Melnikow based his advocacy of a duality of species on (1) its mode of reproduction (embryos); (2) reaction caused by it in surrounding tissues; (3) well-defined geographical distribution; (4) occurrence of both forms in the same animal and in the same viscus. Professor Weichselbaum reported a case where both types, the cystic and alveolar, developed in a human heart. Huber, Jahresber. d. Naturhist. in Vereinen in Augsburg, 1861, reports both varieties in an ox. Melnikow also considers that the parasite of the alv. ech. in its mode of reproduction occupies an intermediate position between the cestodes (tapeworms) and the nematodes (flukes) from its power of producing amœboid embryos in loco, therefore there was no need to fall back on the ova of sexual worm for embryos.*

Pathology.—On account of its very restricted area many writers have never come in contact with the alveolar echinococcus, hence so many conflicting statements on this subject. Through the kindness of Professor Posselt, of Innsbruck, I obtained a specimen of the true alveolar echinococcus tumour. As my own experience was limited to museum specimens in Berlin and Göttingen, I was fortunate in coming into direct communication with Posselt, whose publications, with those of Melnikow, I had previously studied.

Dr. R. H. Pulleine, my fellow student, writing in 1906, says:—"At the Med-Gesell, in Göttingen, Dr. Jenkel, Prof. Braun's assistant, described a case of alveolar echinococcus of the liver that had just died in the hospital. He remarked on its great rarity in North Germany, this case being the third in Göttingen during the past 30 years. Such cases are always imported from South Germany. The diagnosis was secondary carcinoma of the liver. The patient died from

marasmus. At the necroscopy one of the growths in the liver had bulged into the vena cava, causing a thrombus."

The structural and symbiotic differences existing between the chitinous vesicles of the ech. alveolaris and the hydatidose form may be compared as follows:—

Alveolar.—Parenchymatous layer (Keimmembran) may be on either or both sides or not at all. It is crumpled up into a many-folded vesicle which may become either a colloid or chitinous plug (Pfropf). A marked intolerance, due to (1) the embryos; (2) the toxin.

Hydatidose Parenchymatous layer.—Is on the inside (endocyst). It is distended with fluid. A certain tolerance of the cyst, due to the interposition of a chitin membrane between the tissues of the host and the endocyst.

Concerning ech. alveolaris, Melnikow says that there is with the marked tissue reaction a production of amœboid embryos developed from the endocyst (other than those direct from the *tænia*), but V. Linstow and Posselt challenge this assertion. I am inclined to agree with Melnikow, since it affords an explanation for metastases arising in distant organs, through embryos getting into vessels or boring. (As regards the question of boring of embryos, in the Pathological Museum, Göttingen, is a stomach in which an embryo of the *tænia solium* can be seen, which was in the act of boring its way through the stomach walls; when the stomach is empty it lies contracted well under the liver, and the pyloric end lies well under the right lobe of the liver, so one can readily imagine the embryo echinococcus having had its chitinous membrane dissolved by the gastric juices boring its way through into the liver.)

Furthermore, in alveolaris the sexually-produced embryo (not the secondary or asexual form of Melnikow) on coming to rest in a portal radicle, lymphatic or bile duct develops into a much-folded knot or ball (*Chitin-kräul*), which on account of its finely granular protoplasmic layer both inside and outside, provokes marked reaction. For it is this protoplasmic layer which not only produces scolices, vesicles and the amœboid embryo, but also toxic activities which cause an endophlebitis (firstly it is proliferous and later obliterans) with ulceration of the coats of the vessel, through which it forces its

*This would account for Freirich's theory of them growing in bile ducts, as bile usually kills hydatids.

chitinous processes, giving rise to an alveolar growth in Glisson's capsule or other structures adjacent. This much-folded chitinous plug is therefore the homologue not of the ordinary ech. bladder, but of the *terminal segment of a cestode* capable of repeating the activities of the parent either in adjacent tissues (satellite tumors) or in distant organs, e.g., the brain, as metastases. Hence (a) malignancy; (b) explanation of its multi-locular characters. The Keim Schicht (embryonic layer) manifests its activities of reproduction (not the toxic) as (a) scolices; (b) protoplasm embryos without a capsule (Jugendform); (c) embryos with a chitinous capsule (mature form). The immature embryos develop into sterile and abortive vesicles which disappear in the necrotic processes produced by their own toxins. The mature embryos, on the other hand, get into circulation by their amœboid movements and go to distant parts as metastases. The presence of possibly only one surviving parasite is enough to cause sclerosis of surrounding parts and thus alveolar formation on the one hand and caseous degeneration on the other. The first process is that met with in primary tumours, the latter in metastatic growths (which are frequently mistaken for solitary tubercle).

Anatomy.—(Fig. 7.) The stroma is firm, sclerosed connective tissue, due to irritative overgrowth of the host's tissue. The alveoli (0.15—4½ mm.) contain vesicles which, when they become swollen, are colloidal, but when much folded and crumpled are chitinous plugs, and can easily be picked out with a forceps. These alveoli are lined throughout by a very thin layer of chitin (0.08—0.01 mm.) which does not very clearly show its laminated structure.

The boundary or outline of the tumour is uneven, and is composed of granulation cell elements; the centre eventually breaks down into a cystoid cavity with ragged walls. The tumour on section surface maybe 9 by 5½ inches in size, which is very large. The metastatic tumours don't get past caseation (on account of the patient dying) and are mistaken for actinomycosis, and usually the size of a hazel nut; one recorded as big as an apple. In man the primary tumour is usually in the liver, although occasionally it has been seen in other organs, e.g., brain, suprarenal, heart, etc. In animals it occurs chiefly in lungs and liver of cattle, and to a

less extent in pigs and sheep. The duration of the patient's life is usually several years; in one case 15 years.

Symptoms.—In man, the liver being the "site of election," we get the following symptoms:—(1) A long existing liver affection; (2) usually no fever, until sepsis supervenes; (3) persistent severe jaundice, late as a rule; (4) enlargement of the liver and spleen; (5) ascites usually late and unimportant; (6) appetite, with general condition of nourishment and strength not affected till late; (7) circumscribed geographical distribution; (8) an increase in the quantity of both urea and urine. (In North Tyrol, on account of the severe jaundice, it is known as Gilm.)

Diagnosis.—This is fraught with great difficulty, and is generally made at the p.m., *vide* Palleine's case,* it so closely resembles cancer and liver cirrhosis. However, should a patient, suffering with the above symptoms, living in one or the other geographical foci, present himself for treatment, then one would be justified in making a provisional diagnosis of alv. echinococcus. If there are any calcareous particles present, then use the Röntgen rays; otherwise they are of no use. Writing in 1899 Posselt says the blood examination did not reveal much. In two cases were mast. cells met with. In one case there were 3 per cent. of eosinophiles. I will give the average of ten examinations he quotes: Hæmoglobin varied from 50 per cent. to 90 per cent., average being 63 per cent.; red corpuscles, 3,200,000 to 5,840,000; white, 7,000 to 23,400 (during digestion); average of whites to reds, 1:170 to 1:540; colour index, 0.64 to 0.95; average, .78.

Prophylaxis.—As the biology is not yet fully known, one cannot definitely instruct. However, one should keep cattle, pig and sheep shelters clean.

Treatment.—(a) Surgical: As cases are not diagnosed, as a rule it cannot be applied; in the few cases Posselt diagnosed during life, they were too far advanced to operate, although one or two cases were operated successfully, through a mistaken diagnosis. (b) Perhaps some method will be adopted to destroy the embryo in the tissues, possibly some member of the atoxyl group, as Koch is utilising in the Lake Victoria Nyanza district for trypanosomes.

Space necessitates the curtailment of further remarks on this interesting disease, about which numerous theories might be formulated. However, to anyone interested I refer them to Posselt, *Zur Path. des Ech. Alveolaris der Leber*, *Deutsch Archiv für Klin Med.*, bd. lxxiii., 1899; *ibid*, *Die Stelling des Alveolar Echinokokkus*, *Munich Med. Woch.*, No. 12, 1906; Melnikow, *Raswedenkow*, *Ech. Alveolaris*, Fischer, Jena, 1901.

In conclusion, I wish to thank Professor Watson for many suggestions, as well as Mr. F. Poole for the micro-photographs, and Veterinary Surgeon Desmond for the macro-photographs.

PUERPERAL INFECTION: THROMBOSIS: LIGATION OF RIGHT OVARIAN VEIN—RECOVERY.

By Alfred Austin London, M.D. (Lond.), Lecturer on Obstetrics, University of Adelaide.

MRS. G., *æt* 34, had been married five years; in June, 1904, her first child was born; this labour was difficult, the lie being O.D.P., and rotation with forceps under anæsthesia being employed to correct it; she made a good recovery, without any febrile disturbance. I attended her again on September 17th, 1906; the labour was easy, and only one vaginal examination was made; the baby was born alive, and weighed 8½ lbs.; the placenta came away all right.

During the evening of September 19th, *i.e.*, 66 hours after the birth, patient had a rigor and severe headache; on the 20th her temperature was 103° both morning and evening, but beyond the temperature and a rapid pulse (116) there were no other symptoms. There was no abdominal pain, nor was there any odour with the lochia. Quinine and salicylate of soda were prescribed. On the 21st and the 22nd the uterus was thoroughly washed out with a solution of cresylone, followed by normal saline, but no débris came away, so that it was not thought necessary to repeat the douching on the two following days. At 2 p.m. on the 23rd the temperature reached 104°, but next morning it had fallen to 99°; now, however, it was noticed that the lochia were rather offensive, and intra-uterine douching on the 25th was followed by the discovery of a tiny necrotic fragment, no larger than the nail of one's little finger, but very foetid; a slightly larger fragment was washed out

next day. After this date no more débris was seen, but by the 27th the odour of the discharge was horribly foetid. From the 24th to the 28th the temperature assumed a progressive hectic type—normal or subnormal in the morning, and reaching to 104·6° on the evening of the 27th; on the 29th it did not rise above 101°; on the 30th it was 104° again, and several rigors were reported from time to time. For some time there were no abdominal symptoms; the uterus was not tender to the touch; it was quite mobile, and not retroverted. For the first time, on the 27th slight tenderness could be elicited on deep pressure in the neighbourhood of the appendix, and also, by vaginal examination, in the right lateral fornix, but there was no lump to be felt. On the 28th a double-channel drainage tube was employed for the douche; when passed into the uterine cavity, before any fluid had been turned on, foetid pus spouted out of the second channel, showing that it was pent up at considerable pressure; since the washing out on the previous day no discharge had been noticed at all. A gauze drain was left in the womb, and ergot given by the mouth. The temperature that evening was 104°, but next day there was found to be scarcely any fluid pent up, and the temperature was more moderate all day, although on the 30th it was again 104°. On October 1st the highest temperature recorded was 99·6°, but there was no corresponding improvement in the condition of the patient, who was feeling weak, and looking seriously ill. On September 30th a lump was plainly to be felt to the right of the cervix, tender on deep bi-manual pressure. The three following were very anxious days, and on the evening of the 3rd it was decided to explore the pelvis by posterior colpotomy. The patient was too ill now to be removed to a private hospital; indeed, that night Nurse Murray was doubtful whether she would last till morning.

At 8.30 a.m. on October 4th Dr. Cooper administered ether, and under its influence the patient's pulse seemed to improve. The vagina was well douched and the cervix cleaned; the lump in the right fornix could now be palpated better, and was obviously not fluctuant. The peritoneal cavity was rapidly opened, and the lump made out to be due to thrombosis of the veins of the right broad ligament; there was rather free bleeding, both from the wound and from the interior of the pelvis, but it was easily stopped

by a light plug, which subsequently served as a drain. There seemed nothing left for one to do but to ligature the veins. The abdominal wall was rapidly cleansed, an incision made, and the efferent ovarian vessels of the right side included in a catgut ligature, beyond the thrombosed veins, without any attempt being made to isolate the ovarian vein from other structures in the broad ligament. Rapidity seemed to be more essential than perfection of technique, though I was enabled to suture the abdominal walls satisfactorily. After the operation there was considerable collapse, but with brandy enemata, hypodermic injections of strychnine, and digitalis by the mouth, the patient rallied.

There was no sickness afterwards. As a result of purges administered before the operation the bowels were moved rather freely, and it was necessary to give a suppository of morphine gr. $\frac{1}{4}$ early next morning to check the looseness, but the looseness had this advantage, that the patient got rid of much flatus and so distension of the belly was avoided; on the other hand, the nutrient injections could not be retained, but these were less necessary since the patient took nourishment by the mouth. She looked fairly well and cheerful, and was even able to suckle her baby a few times, but this had to be discontinued as being too exhausting for her. The drain was removed from Douglas' pouch on the evening of the 5th. On the 7th the temperature and pulse both showed signs of improvement, but we were disappointed on the afternoon of the 10th when a steady rise of temperature set in, culminating in 104.6° at 6 a.m. on the 11th; at 8 o'clock some 10 c.c. of antistreptococcic serum were injected, after which the temperature steadily fell, and remained below 100° till the evening of the 22nd, when another wave of pyrexia set in; patient fainted and vomited; on the 25th a scarlatiniform rash appeared, and the temperature reached 102° ; on the 27th it was normal. Patient gradually improved in strength. On the 19th October she was carried out on a stretcher into the open air. Early in December she was able to attend an evening reception.

Remarks.—First, as regards the source and nature of the infection. The nurse made no vaginal examination, though I did. Did I convey infection to the patient? Her

labour was concluded at 3 a.m., and at 8 a.m. the same morning I attended another patient, and delivered her with forceps with no untoward result. A day or two later my attention was drawn to some small boils on the nates, and it further transpired that the patient had recently been to the lodge doctor to have her finger lanced. Then as to the bacteriological character of the infection. Had Mrs. G. been in a private hospital or maternity home this might have been ascertained, and even in private practice I admit that this ought to have been done, though it involves some little trouble and skill.

Next, with respect to the treatment. Might not antistreptococcic serum have been tried earlier? True, it might have, but the apparent improvement on September 24th and 29th, and on October 1st, allowed us to build up false hopes on three separate occasions; the discovery of the foul lochia encouraged persistence in washing out and draining the uterus; then, later, the discovery of a focal lesion called for local exploration and treatment. As to the nature of the pelvic lump, bearing in mind the foetus of the lochia and the evidence of the discharge being pent up at high pressure, I was inclined to suspect a pyo-salpinx rather than thrombosis of the pelvic veins, but I had made up my mind, in the event of it turning out to be the latter, to ligature them, as a last resource. My attention was drawn to this operation by the report of a successful case in the *Journal of Obstetrics and Gynaecology of the British Empire* for May, 1906, by Mr. Archibald Cuff, of Sheffield. The principle of the operation is, of course, the same as that which underlies ligature of the internal jugular vein for thrombosis in connection with middle-ear disease. Mr. Cuff's operation was more elaborate than mine; he incised the peritoneum over the bundle of thrombosed veins, and applied ligatures both on the uterine and pelvic sides of the clot; then, finding the ovarian vein also thrombosed, he ligatured it also sub-peritoneally half an inch from its junction with the vena cava. I contented myself with a ligature of the broad ligament, presumably including the right ovarian artery and vein, considering that having arrested the venous circulation on the side proximal to the heart, it was probably unnecessary to trouble about a distal ligature.

A CASE OF ACUTE LYMPHATIC LEUKÆMIA IN A LITTLE GIRL AGED 4½ YEARS.

By F. S. Tange, M.B., Ch.M., Hon. Medical Officer,
The Royal North Shore Hospital, Sydney.

EARLY in February, 1906, Dr. Clarence Read (to whom I am indebted for permission to publish this case) asked me to examine the blood of a little girl, F.G., aged 4½ years, under his care in the Royal North Shore Hospital. She had been admitted with a history of having become gradually paler and weaker during the six weeks preceding her admission to the hospital. Prior to this she had been an apparently healthy child running about with a bright colour. She had had no previous illnesses to speak of. Her family history was good. When brought to the hospital she was in a state of profound anæmia, her appearance being more like that of a piece of white marble than anything else, the mucous membranes of the conjunctivæ, lips, mouth, etc., all being of the same pallid hue. The temperature was subnormal, the pulse weak and thready. There were a few purpuric spots to be seen upon the buttocks. She lay limp in the bed in a listless apathetic condition. There was no enlargement of the spleen to be made out clinically, nor other sign to help one to a diagnosis. The blood for examination was taken from the lobe of the ear; to obtain it a deep, broad puncture was necessary, the drop oozing slowly and being very pale in colour, thin and fluid. In the fresh drop under the microscope a marked condition of poikilocytosis was at once evident, a large number of microcytes being present. The rouleaux formation was not greatly affected. With the hæmocytometer the red cells were estimated at the extremely low count of 420,000 per c.m.m.

The white cells showed a marked comparative increase, being 15,000 per c.m.m., 95 per cent. of which in the stained films were found to be small lymphocytes. The ratio of white to red was thus 1 to 28. The hæmoglobin by Tallquist's hæmoglobinometer was estimated at only 6 per cent., the shade being considerably paler than the palest of the colour scale (10 per cent).

Differential Count.

Poly. Morph. Neutrophiles ..	..	3 %
Lymphocytes, large ..	..	1.4 %
" small ..	..	95 %
Eosinophiles ..	..	6 %

The sister in the ward confirmed the ac-
acy (as far as it is possible to be

accurate with hæmoglobin in such small amount) of this result by also matching the colours. The individual red cell value in hæmoglobin was '7.

No normoblasts or megaloblasts were noted.

These facts will give some idea of the severity of the anæmia.

Three days after admission the child died from exhaustion. At the post-mortem immediately upon opening the abdominal cavity the mesentery was found to be thickly studded with innumerable small glandular enlargements varying from the size of a cherry near the root of the mesentery to that of a pea or smaller near the intestine. This condition obtained throughout the whole mesentery. No other glandular enlargements were found. The spleen was found to be slightly enlarged and its surface roughened and somewhat hobnail-like in character. The liver showed little, if any, enlargement. Upon the heart beneath both pericardium and endocardium small petechial hæmorrhages were to be seen. Its fat was of a deep yellow colour. Several ounces of fluid were found in each pleural cavity, and somewhat less in the pericardial cavity. Extreme pallor was noticeable everywhere.

Unfortunately sections of the organs were not cut. This is a case of lymphatic leukæmia of the acute type, and is of considerable interest from its rarity in children, especially in girls, and also in this particular case from the gravity of the anæmia.

Holt describes leukæmia as a rare disease in childhood, though it has been found even in early infancy and the new-born. Of the two forms he finds the splenic-myelogenous more common than the lymphatic.

Da Costa, on the other hand, states that lymphatic leukæmia is five times the more common. Both agree in finding the disease rare in the female, and as to its bad prognosis, it usually being fatal in less than a year apart from the acute type.

As to its etiology little is known. It may follow on syphilis, rickets, malaria, simple anæmia, or occur as a primary disease in children previously healthy. Heredity may have an influence (Holt).

Of the cases that I have been able to find accounts of, three that Müller reports most nearly resemble this case, one more especially in which just before death the red cells numbered 1,232,000 and the whites 6800, having fallen in the last four days from 1,508,000 and 109,500 respectively. Such

a thing may have happened in this case where unfortunately not more than one examination was made. These three cases were all in boys 4 years old, and were of the gastro-intestinal type, the glands throughout the whole length of the alimentary tract being enlarged, with enlargement also of the liver and spleen.

Morse² has published two articles on the leukæmia of infancy, the first in 1894 on 20 cases he collected, but of these, he says, perhaps not more than a third were genuine, differential counts not being made. In the second article dealing with the acute form he publishes seven cases.

Thayer¹ in 1893 reported a case with a ratio of one white to 20 red cells, and a differential count showing small lymphocytes 97·9 per cent., large lymphocytes ·7 per cent., polymorphonuclear neutrophils 1·4 per cent., eosinophiles ·08 per cent.

Theodore⁴ from German literature collected six cases of acute leukæmia, including one of his own of the lymphatic form.

Da Costa in his latest edition has collected and tabulated 21 cases, in which differential counts leave no doubt as to the precise character of the disease. Of these 15 are of the lymphatic type, 6 of the myelocyte, and they range from the ages of nine months to 15 years.⁵ Amongst these is a case of Hutchinson's with hæmoglobin value only 10 per cent., red cells 1,200,000, whites 170,000, and 98 per cent. of small lymphocytes.

Instances of acute lymphatic leukæmia have also been reported with more or less accuracy by Gilbert and Wiel, Bradford and Shaw, Guinon and Jolly, Haushalter and Richon, and by Block and Hirschfeld.

It is to be regretted that more details were not obtained of this case, but as often occurs it came at a most inopportune time, there being few facilities then at the hospital for a complete examination. However, sufficient was made out, I think, to establish the identity of the disease and prevent the total loss of a rare case.

REFERENCES.—1. Cabot, p. 827. 2. Boston Medical and Surgical Journal, August, 1894. 3. Boston Medical and Surgical Journal, 1893, vol. cxxviii, p. 183. 4. Da Costa, last edition. 5. Lancet, 1901, vol. 1, p. 1332.

Charitable Bequests and Donations.—Mr. George Wills, head of the well-known firms of George Wills & Co. and G. & R. Wills & Co., who died in London on December 16th, left a fortune of £718,525 gross and £666,811 net. By his will, just proved, he has left the following bequests to Adelaide institutions: Adelaide Hospital, £1000; Blind and Deaf and Dumb Asylum, £1000; Hospital for Incurables, £1000;

CLINICAL AND PATHOLOGICAL NOTES.

TETANUS FOLLOWING A BURN.

IN December, 1906, a woman, *æt.* 25, living on a farm, burnt herself on the left forearm with a flatiron. The burn was not severe, but caused vesication over about two square inches, and was tied up with some household linen. At the end of 12 days it was practically healed, but about this time patient began to complain of stiffness of jaws and difficulty during mastication. When seen by me on the fifteenth day she exhibited well marked symptoms of tetanus, risus sardonicus and opisthotonos were well marked, with regard to all neck and trunk muscles, and later those of the legs were in a state of tonic contraction. She could at first open the jaws about half-an-inch, but later on the teeth could scarcely be separated, and feeding would have been impossible by the mouth, only fortunately the upper incisors and canine were absent. Patient was kept in absolute quiet in a darkened room. Three doses of Parke-Davis' tetano-toxin were injected, but this (the only obtainable) was beyond the age limit advised, and the writer does not consider much benefit accrued. The case was subsequently treated by Baccelli's method, viz., 2 c.c. of a 2 per cent. sol. of carbolic acid were injected hypodermically every four hours. Injections were continued for about 10 days, and less frequently for one week longer, by which time patient was considerably improved. Within one month from onset of symptoms she was convalescent. Although the disease was not of the worst type, the spasmodic contractions which occurred being neither very violent nor excessively painful, it seems quite possible that the treatment indicated influenced its course favourably. I have recorded this case, as tetanus (for what reason I know not) is supposed very rarely to follow a burn. According to *Medical Review*, 1900, only 15 cases are recorded in medical literature.

BRUCE A. ANDERSON.

Westbury, Tasmania.

A CURIOUS AND INTERESTING URINARY CASE.

IT is at all times extremely difficult to arrive at a correct diagnosis in some urinary affections. Sometimes patients are looked upon as thorough hypochondriacs when the neurotic element is merely superadded to a genuine

disease, and their exaggeration of symptoms induces the practitioner to consider them wholly imaginative humbugs. It is always dangerous to tell a man that he is absolutely well unless we are sure of it, and in order to be sure of it we must exhaust every method known to us before stating positively our convictions. The following case is one of the most interesting I have met.

The patient was a man about thirty years of age. Three years ago he acquired a gonorrhœal urethritis, which kept on for seventeen months. There was slight frequency by day, none at night. He lost weight, but latterly improved. Twelve months ago he began to get slight frequency by day as well as by night, until when I saw him nine months ago he was getting up from three to six times every night. Between the acts of micturition there was very little pain, but after passing urine he had a desire to strain and pass more. There was never at any time any sign of blood.

On examining with the cystoscope there were to be seen six or eight tiny tubercular ulcers scattered about the region of the trigone and the bladder wall adjacent. The orifices of his ureters were normal, and were emitting clear urine.

He went to the sanatorium at Adelaide and after remaining for three months he had improved in weight and his urinary symptoms considerably abated. He then went home to Launceston, and after a short period, during which he felt very well, he began to get a return of urinary symptoms. He had frequency and irritability as before, but very little desire to strain after he had completed the act. He then left for Melbourne and placed himself in the hands of surgeons, who felt sure, so he states, that he had stone. No stone could be discovered, so he was treated with tuberculin. His symptoms did not improve, and he suffered from pain running down into the penis and pain at the point of the penis. He then came to see me, and on examining with the cystoscope I found that he had a perfectly clear and normal bladder, except for a peculiarity at the orifice of the left ureter. On watching this closely clear urine could be seen coming away in a small, feeble stream, but at the same time immediately behind the orifice the ureteral canal dilated to the size of a hazel nut, presenting a clear opalescent appearance, and as the urine gradually and with difficulty escaped the dilated portion crinkled and puckered up.

The whole of his present symptoms were at once explained. It was more than probable that the puckering and constriction of the orifice were due to the healing and consequent scarring of a tiny ulcer. The penile pain, frequency and irritability would all proceed from the constriction at the ureteral orifice. I opened suprapubically, slit up the ureter, and fastened back each flap so as to leave a free gaping outlet. When the patient left me about four weeks afterwards he was in good urinary health and putting on weight. Without the cystoscope the diagnosis would have been impossible. With it the whole matter was perfectly clear. He had been cystoscoped elsewhere, but very likely the condition was not then appreciable.

Sydney.

H. CRITCHLEY HINDER.

CÆSAREAN SECTION FOR HYDATID CYST.

M.B., a primipara, *æt.* 19, a patient in the South Sydney Women's Hospital, started labour at 9 p.m. on January 19th, 1906. The midwife in charge sent for me to see the case, as it was abnormal.

On abdominal examination there was a large cystic tumour above the pubes, giving the appearance of a distended bladder, and although assured that the patient had passed urine a short time previously, I passed a long Jaques catheter, but only a few ounces of urine were withdrawn, and the size of the prominence was unaffected. On examination per vaginam the pelvis was found almost completely filled by a large, tense cystic mass; the os uteri could just be felt slightly dilated high up anteriorly.

My opinion was that it was an ovarian cyst, and it was quite impossible that the child might have been delivered past the obstruction. I asked Dr. Wade to see the case with me, and he held the same view. We decided that it was wiser to do a Cæsarean section rather than open the cyst, and hope sufficient would drain away to allow the child being born naturally.

Preparations were made at once, and a full term healthy male child delivered at 11.45 p.m. As seems to be the usual experience in such cases, the placenta was immediately below the line of the uterine incision. Hæmorrhage was comparatively slight, owing to the short time which elapsed between making the incision and emptying the uterus. The uterus contracted rapidly,

was partly delivered through the abdominal incision, and the cut surfaces united by interrupted catgut sutures through the muscle and peritoneum, a fine continuous catgut suture then being used to approximate the peritoneum.

On examining the cyst it was then found to be a hydatid, completely filling up Douglas' pouch and pushing up the uterus; the upper wall of the cyst was very thin; appendages normal. The abdominal incision was closed by through and through silkworm gut.

The patient made an uneventful recovery, and after 14 days, on February 1st, all lochial discharge having ceased, the hydatid was opened and drained through the posterior fornix. There was thus good drainage, and the sac rapidly contracted, so that the mother and child were discharged from the ward on February 25th with the vaginal opening closed, the uterus well involuted, in normal position, and quite movable.

It was an excellent case for Cæsarean section, as she was a strong, healthy country girl, had only just come into labour, there were no previous violent manipulations per vaginam to endeavour to deliver the child, as is frequently the case before a section is done, and therefore no exhaustion.

I can find no record of any previous case where Cæsarean section was required owing to a hydatid, but Dr. Daish, of New South Wales Western Districts Medical Association, in 1905 reported a case in which he diagnosed a large pelvic cyst obstructing labour as a hydatid, opened it, and the patient was delivered per vaginam.

I have to thank Dr. Wade for his valuable assistance, and Dr. Ramsay Sharp for administering the anæsthetic.

T. W. LIPSCOMB, M.B., Ch.M. (Syd.)
Leichhardt.

REVIEWS AND NOTICES OF BOOKS!

HIGH FREQUENCY CURRENTS. By H. Evelyn Crook M.D., B.S. (Lond.), F.R.C.S. (Eng.). Pp. x + 206. Illustrations, 44. Size, demy 8vo. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 7s 6d net.

In bringing this book before the English-speaking members of the medical profession, the author hopes that it may in some way help to bring before the notice of medical men the therapeutical value of high frequency currents in certain pathological conditions. These currents are used more extensively on the Continent and in the United States of America than in England. They have not met with much recognition

in the latter country, partly, no doubt, owing to the reason that they have been used by so many unqualified and by some unprincipled men.

No doubt they do possess some therapeutical value, though probably not as much as they are given credit for. The book consists of three parts:—Part I., The Production and Physical Properties of High Frequency Currents; Part II., The Physiological Effects of High Frequency Currents. Part III., The Therapeutical Uses of High Frequency Currents. It is written in a good, free style, is copiously illustrated, and is a much better book than any of its predecessors on this subject.

THE USES OF X-RAYS IN GENERAL PRACTICE. By R. Higham Cooper, L.S.A. Pp. 98, with 5 plates. Crown 8vo. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 2s 6d net.

This little volume has been compiled by Dr. Cooper, medical officer in charge of the Radiographic Department at University College Hospital, etc., etc., whose intention it is to give the general practitioner some idea of the help he may get in his practice from the use of the X-rays, indicating to him what cases are suitable for him to examine or treat himself if he possesses suitable apparatus, or for sending to an expert.

The book is divided into two parts. Part I. deals with the X-rays in diagnosis, and contains chapters on the physics of the X-ray, the X-ray tube, the induction coil, setting up apparatus, photography in X-ray work, stereoscopy, radioscopy and radiography, location of foreign bodies and diseases of bones and joints. Part II. is confined to the X-rays in treatment. The five chapters describe the action of the rays on the tissues, the X-ray burn, protection and dosage, diseases of the skin and its appendages, tuberculosis, carcinoma and sarcoma, and radiotherapy of other diseases. There are also five whole page illustrations.

The matter in this manual is necessarily condensed, the actual physics being reduced to a minimum; and those who desire a more thorough knowledge of the subject are referred by the author to the many text-books already in circulation. At the same time, any practitioner or student taking an interest in this subject should certainly read this book before any other, as the subject matter is handled so concisely that in the course of an hour's reading a general idea of the whole science may be obtained.

The book is neatly bound, and art paper is used throughout. Both author and publisher are to be complimented on the production of this A B C to the X-rays.

THE TREATMENT AND PROPHYLAXIS OF SYPHILIS. By Alfred Fournier, Professor at the Faculty of Medicine, Paris, and Physician to the St. Louis Hospital, Paris. English translation by C. F. Marshall, M.D., F.R.C.S., formerly Resident Medical Officer to the London Lock Hospital. Second edition. London and New York: Rebman Limited.

Everything from the pen of so great a master in syphilography as Professor Fournier must command the respectful attention of the medical profession. It is indeed a curious fact, as Dr. Marshall points out, that only one previous work by this distinguished Frenchman has been translated into English. So great is our debt for that one work, "Syphilis and Marriage," that it is most truly a serious loss to the

English-speaking profession that so many of his other writings on syphilis are thus closed to the majority of British practitioners. Dr. Marshall has endeavoured to lessen this loss by the publication in English of a couple of Professor Fournier's recent works. His translation seems to our judgment a most successful one, for he has not only given us the actual teaching of the master, but has succeeded in no small degree in presenting it to us in vivid, crisp and often picturesque language. To those who have actually listened to Fournier the impression will be clear that the translation before us gives the spirit, manner and words of the master in a way not common in the transference from one language to another. The captious critic can, no doubt, here and there find curious uses of English and coined words, but these are trifles. On the whole this translation seems to the reviewer an admirable performance. These two works jointly run to no less than 480 pages of print; and therein lies the one weak point in this great and practical mass of information. It is far too diffuse. What may be excellent in a spoken lecture is out of place in a written treatise. Moreover, Professor Fournier in his laudable desire to emphasise and be very clear is apt to devote pages to matter on which we are all agreed. He puts up mental skittle pins and rolls them over with diffusive eloquence and masterly argument; but it is all waste of time. I take, for example, the very first two chapters of the book. I. Is it necessary to treat syphilis? II. Is it necessary to treat every case? These two questions, if they merit an answer at all in these days, do not surely require 16 large pages of print. A couple of brief paragraphs at most would dispose of them. Now this discursiveness, this picturesque redundancy, is the one vice of the work before us. True, the subject matter is always readable, never dull, and usually instructive, but life is too short for such lengthiness. Far be it from the desire of the reviewer to praise that type of concentrated cut-and-dried medical teaching which is the educational homologue of *Frame Food* or *Brand's Essence*, yet a happy mean in amplification must be struck, and Professor Fournier has here often overstepped that happy mean. These two treatises could, in good truth, have been shortened by nearly 200 pages without leaving out one important point among the many great lessons they teach. Had they been written with a less discursive pen they would have equally given us the conclusions which the experience of 40 years have etched upon the writer's "teeming brain," and have contained just as usefully,

"Like rich garners the full-ripened grain"

of a long and observant life.

Of the second part of this volume—*The Prophylaxis of Syphilis*—one may say at once that it is full, clear, comprehensive, and contains in temperate language and with a broad, kindly spirit towards human frailty, all that modern science, a spirit of compromise, and a full knowledge of social life can suggest to mitigate the spread of venereal disease. It would be well if it could fall into the hands of practical politicians, the clergy, the "shrieking sisterhood" of both sexes, and indeed all who interest themselves in social, sanitary and moral questions. To the practitioner the "Treatment of Syphilis" is naturally the section which will be of most practical interest. It is impossible in the space allotted to a review to do justice to the wisdom, experience and practical advice with which this book abounds. Certain great lessons, however, are rightly made prominent. First is the fact that syphilis is often made too light of, both by the profession and the

laity. The far-reaching physical and economic ruin which may follow in the train of a hard chancre ought never to be improperly minimised. Again, one of the reasons why syphilis is so powerful for long lasting evil is due to the fact insisted upon over and over again in this treatise, viz., that syphilis, perhaps in the majority of cases (certainly among the poor and ignorant classes), is either not treated at all, or treated insufficiently, both in dose and in continuance of therapy. Such insufficient measures tend to tertiarism. Another matter is that we are all probably too easy in our professional permission to syphilitics to marry. The reviewer rises from a perusal of this work with the conviction that three years from the date of infection is too short a period. Even where the treatment has been faithful and full, how much more must this time be lengthened where the therapy has been grossly inadequate? In drug treatment by the mouth the green iodide of mercury is Professor Fournier's favourite, and corrosive sublimate comes second. Among British practitioners the great and deserved influence of Hutchinson makes hydrarg. c. creta, tempered by Dover's powder, the favourite formula. Fournier does not even mention it. Probably there is little to choose between these three preparations, but in the hands of most of us grey powder seems a convenient and successful way of giving mercury over long periods. The more recent methods of administering the drug in various forms by intramuscular or intravenous injection are admirably and judiciously discussed, and should be read carefully by all who hanker after new and strange gods in medication. There are, no doubt, cases where the necessity of bringing the patient swiftly under the influence of mercury may call for the rapid momentum of intramuscular injections of one or other of the various preparations in vogue for that purpose; but the cases in which intravenous injections are justifiable, in the present state of our knowledge, must be very few. We commend the wise presentment of this important matter to those who are interested in the subject. No less than 58 pages are devoted to it. Another matter to be read with attention is his remarks on excision of the primary sore, a practice which the author admits may have a sphere of usefulness in a certain number of cases. The indications for it in such cases are honestly and fully described, yet without enthusiasm. One had wished that he had said something here on his views of the rôle played by the *spirochaeta pallida*, but being a book devoted to therapy this discovery is hardly touched upon. There is also, to our regret, no comment upon Metchnikoff's recent work on the prevention of infection by the use of an ointment of calomel. With regard to iodide of potash and its place and dosage in the treatment of syphilis, he discusses its virtues very fully. He advises its administration after meals. This is contrary to the practice of many of us, who, in youth, were taught to give it well before meals in order that it should not be converted into the iodide of starch, a less active substance than the potash salt. Sarsaparilla and guaiacum receive scant respect as regards any possible value they may have. The formula of Zittman's decoction is given in a footnote—a small point of interest, in view of the recent discussion on its value in the *B.M. Journal*. Putting aside the one fault of diffusiveness, this work must stand as one of the fullest and most practical on the treatment of syphilis in any language. It ranks indeed with that of our countryman, Jonathan Hutchinson, to whose writings we are all so deeply and lastingly indebted.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH MARCH, 1907.

THE RECRUDESCENCE OF PLAGUE IN SYDNEY.

FOR the seventh year in succession Sydney has been visited with an epidemic of plague. The recurrences each year have varied in severity, but this year the outbreak has been in the heart of the city, and has proved a serious one, several deaths having already occurred. It seems that in spite of all that has been done in the past, and with all the warnings that have been given by our health officials, the disease recurs again, and there is every prospect at present of an indefinite recurrence with its damage to business, which, it is true, we hear little of, yet is none the less serious. In view of this, we may well ask whether all that can be done is being done to stamp out the disease. We must acknowledge that the experience gained in the past few years has been of immense service, and is being utilised to-day in the methods of dealing with the epidemics. The association of the disease with rats has been definitely proved, and this knowledge has led to certainty and economy of procedure in dealing with the epidemic. But what we want is *prevention* of the recurrence of the disease, rather than knowing how to deal with an actual epidemic, and past experience has shown that we have not yet learned how to prevent the disease. There can be no doubt that familiarity has bred contempt, and the apathy of the general public, as well as the existence of old rat-infected buildings and ill-protected public wharves, are all serious obstacles to prevention. These still remain as menaces to the public health as well as to

the industrial and commercial prosperity of the city, and we shall continue to suffer if these conditions are allowed to remain, unless some more effective method of dealing with the rats can be devised.

In this connection it is interesting to learn that among the subjects selected for special discussion at the fourteenth International Congress of Hygiene and Demography, which will be held at Berlin in September next, is "The Modes of Spread and the Prevention of Plague." The organising committee have through the President of the Congress personally invited Dr. ASHBURTON THOMPSON to attend and to join in introducing the subject to the Congress. In this he is associated with Professor KOCH and Dr. GAFFKY (Germany), Dr. FAIVRE (France), Professor KITASATO (Japan), and MAJOR LAMB, M.D., I.M.S. (India), whose scientific work is well known and who is at present a member of the Plague Research Committee appointed by the India Office, the Royal Society, and the Lister Institute, now at work under direction of Dr. CHARLES J. MARTIN, F.R.S., Director of the Lister Institute.

In view of the possible indefinite continuance of the disease in our midst, the unenviable notoriety that Sydney will continue to enjoy (?) in the eyes of the world as a hot-bed of plague, and the consequent serious dislocation of business, it is imperative that something should be done, and that as soon as possible, to rid our city of this serious disease. We would, therefore, strongly urge the importance of our Chief Medical Officer, Dr. ASHBURTON THOMPSON, being sent as the representative of this State Government to the Congress at Berlin, so that he may become personally acquainted with all the latest information on this subject, and return to Sydney fully equipped with all the latest methods to be used in the prevention of this annual visitation of plague.

DISEASES AND CAUSES OF DEATH.

In order to readily compare the various branches of the vital statistics of Australia with those of other countries, the adoption of a common nomenclature and scheme of classification is essential. This remark applies with perhaps special force to the record of disease and death, mainly because of the elaborate character of the technical description required.

The classification at present in use in Australia has long been recognised to be defective and to urgently need revision, points upon which there is perfect unanimity on the part of the professional statisticians of Australia. The classification actually in use neither responds to the needs of medical science, as it stands to-day, nor does it satisfactorily admit of a wide field of comparison. The changes made in other countries in respect to vital statistics make it eminently desirable that there should be a collateral change in this. It is now over seven years ago that the United States, Canada, and Mexico decided to accept the classification of the "Institut International de Statistique," subject to the amendments involved by the resolution of the meeting, then to be held, in 1900. This classification, owing to the part he played in its development, is generally associated with the name of Dr. JACQUES BERTILLON the distinguished chief of the Statistical Department of the City of Paris; in fact, the classification is usually called the BERTILLON classification.

As is well known, the International Institute was created in London in 1885, under the auspices of the British Government. It revived and developed the functions of the International Statistical Commission, and with consummate care has undertaken the undeniably important work of articulating practically the whole range of ordinary

statistics. It has done this in such a manner as to commend its work to all persons who recognise the greatly increased value acquired by statistics when developed upon a plan uniform, so far as that is possible, throughout the world.

In Australia, however, there has, so far, been no well-ordered attempt to fall into line with the progress in statistical technique that has characterised internationally adopted methods, notwithstanding that this improvement of technique expressly aims at making the comparison as wide as possible, and is really essential for the purpose of thorough comparative criticism. When the fundamental character of vital statistics is perceived, it will also be recognised how desirable it is that Australia should no longer hesitate to fall into line with internationally adopted methods. The creation of a Commonwealth Bureau of Census and Statistics, and the entrance of that bureau upon the work of statistical compilation for the Commonwealth itself, may be regarded as a fitting opportunity to introduce, as far as circumstances will allow, all modern developments of statistical technique. With this in view, and as one step in the right direction, the Honourable the Minister for Home Affairs authorised, and the Commonwealth Statistician—Mr. G. H. KNIBBS—undertook, the work of preparing an English translation of the comprehensive classification of diseases and causes of death adopted by the International Institute above referred to. This has now been issued for the use of medical practitioners, registrars of deaths, and statisticians, as well as for general information.

It is, of course, to the medical man that the statistician must look to correctly describe the causes of death on the certificates. Behind the certificates the statistician cannot go, and therefore, from the statistical point of view, they are of value

just in proportion to their correctness. It is not, however, sufficient that they should accurately conform to some nomenclature, however scientifically sound. It is necessary that the adopted nomenclature should be world-wide. The one now offered is intended to serve for the existing decennium, and will then be revised and brought up to date. Practically, all statistics are relative. To readily compare the condition of this country in regard, say, to the health of its people, we must ascertain not merely the total number of deaths in the whole Commonwealth, but the number in each characteristically different division of the Commonwealth, and, further, the number from each specific cause of death. The statistician must perforce compile the certificates as he receives them, or, if they do not conform to the adopted nomenclature, interpret them as far as he can.

If medical men throughout Australia, in furnishing certificates of death, will kindly adopt this nomenclature, they will greatly facilitate the work of the statistician. In so far as the nomenclature is not followed in such certificates, the statistician will be compelled to recast it as best he may, for unless that is done the statistics of Australia cannot be put into immediate comparison with those of other countries.

The classification will be supplied *gratis* to any person professionally interested in statistics. Any medical man communicating his desire for a copy to the Commonwealth Statistician, at the "Commonwealth Bureau of Census and Statistics, Melbourne," will receive a copy by return of post.

THE MONTH.

International Congress on Hygiene and Demography, Berlin, 1907.

The fourteenth International Congress on Hygiene and Demography is to be held at Berlin from September 23rd to 29th next.

Eight sections have been formed, viz.:— (1) Hygienic microbiology and parasitology; (2) dietetic hygiene, hygienic physiology; (3) hygiene of childhood and schools; (4) professional hygiene and care of the working classes; (5) combating infectious diseases and care of the sick; (6) hygiene of dwellings, townships, waters and traffic; (7) military, colonial and naval hygiene; (8) demography. Medical men from all foreign countries, as well as official representatives of foreign governments, will be heartily welcomed to the congress.

Secret Commissions.

Judging by the provisions of the new Prevention of Corruption Act, which has recently been passed by the British Parliament, the giving and receiving of secret commissions must have been assumed to be a much more common practice than is usually admitted. For example, under this Act, "medical practitioners must not receive commissions from tradespeople in return or recommending them or their wares! or from dentists for recommending patients; nor are they allowed to pay commissions to hotel proprietors, lodging-house keepers, monthly nurses, midwives, or others for introduction to cases! A consultant must not share his fee with the medical attendant. Commissions may be paid to agencies for introducing resident patients; but no medical practitioner will be able to receive a commission for recommending a patient to a colleague, or from hotels, boarding-houses, lunatic asylums, or sanatoria, or for any service where his whole duty is to his patient, from whom alone he should accept remuneration." We would prefer to believe that these provisions are rather prospective than retrospective. In any case they assume such a degree of degradation of the noble profession of medicine as is hardly possible to conceive of. We should be very sorry to think that such practices were so common (or indeed occurred at all in Australia) as to justify legislative interference.

Health of School Children in West Australia.

Dr. Blackburne has recently been making a medical examination of the school children in the Kalgoorlie and Boulder State Schools. They have been examined in connection with eyesight, hearing, teeth, nose and throat, heart, skin, and deformities. At Boul---

State School, out of 204 girls and 231 boys examined, 52 boys and 52 girls were advised to get medical advice or dental treatment. He reports that, generally speaking, the results of the examination are much the same as for Kalgoorlie. Putting the two goldfields' schools together and comparing them with Perth, there is a much larger percentage of children having defects of vision and lateral curvature of the spine in some degree on the goldfields than in the coastal districts. Obviously, then, the children on the goldfields are subject to some debilitating influence, which is not acting, or not to the same degree, in Perth. He thinks it probable that the most important factor operating against the goldfields children is climate, and he therefore suggests that, for a certain portion of the year, working and school hours should begin about 6 a.m. and cease about noon. Regarding Dr. Blackburne's report on school hygiene, the Inspector-General of Schools (Mr. Cecil Andrews) said the recommendations contained in it with respect to school hours on the goldfields would be considered by the Department. Even now, at Brodie, in the north-west, in the very hot summer months, the school meets at 8 a.m. and finishes at 1 p.m.; but in the cooler months the ordinary hours are observed. On the goldfields, however, it might be difficult to arrange for early morning classes, owing to domestic conditions and the working hours of the miners.

Sickness in Mining Districts.

The Registrar and Actuary for Friendly Societies in New South Wales has been investigating the question of the relative amount of sickness in mining and non-mining districts, and has arrived at some interesting figures. These are based on data furnished by the Independent Order of Rechabites. Taking the ages of members in groups between 16 and 60, he shows that the aggregate of the expected period of sickness during the five years 1900-1904 in 14 mining districts was 2302.51 weeks, and the aggregate actual period of sickness was 2924.5 weeks; the actual average percentage of "expected" was 127. In the non-mining districts the aggregate expected period of sickness was 7717.80 weeks, and the aggregate actual period 6473 weeks, the actual percentage being 83.9. For the whole society the actual percentage to "expected" was 94 weeks.

In this connection we would draw attention to the summary of a very valuable and comprehensive report on "Miners' Phthisis in Bendigo, Victoria," drawn up by Dr. Simmons, of Melbourne, which is published in another part of our present issue (page 139).

The Abortion-Monger a Common Nuisance.

The difficulty of securing the conviction of persons who have been guilty of procuring criminal abortion is well known. In the case of the death of the unfortunate victim of the operation, the operator is put on trial for wilful murder or manslaughter, and the juries seem loath to bring in a verdict to that effect. This trouble exists in other parts of the world besides Australia, and we learn from the New York *Medical Record* that the District Attorney's office finding it so difficult to secure convictions of abortionists on the charge of performing illegal operations, has decided that in future the experiment of trying some offenders upon the charge of being common nuisances will be made. A midwife was recently convicted under the provisions of the code pertaining to common nuisances and sentenced to a year's imprisonment in the penitentiary, and a fine of 500 dollars. One witness who had been employed in the house of the prisoner testified that in three months over fifty women had been operated on in the house, and one had died. We commend this idea to our criminal law authorities, though we are afraid that by many of the "common or garden" jurymen the abortion-monger is looked upon as a public benefit rather than a "common nuisance."

Dearth of Nurses and Doctors.—The chairman of the Perth Hospital Board recently reported that that institution had been endeavouring to secure locally the services of doctors and nurses, but without success. Dr. Lovegrove said his experience was that the State was never worse off for doctors and nurses than at the present time. Advertisements had been published for two staff nurses, but they failed to bring forth a single application. Two charge nurses are being brought over from New South Wales, and a medical man from Melbourne; while two junior resident officers are being advertised for in the eastern States for a period of 12 months.

Noxious Trades.—In consequence of the pollution of Cook's River and George's River, the Board of Health some weeks ago made a recommendation to the Chief Secretary that certain trades be proclaimed "noxious" under the Noxious Trades Act. That has been done, and the Board of Health is now preparing the necessary regulations, and when they have been proclaimed such steps as may be considered necessary to abate these nuisances will be taken.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

Victoria.

THE ordinary monthly meeting was held in the hall of the Medical Society on March 6th; the President, Professor H. B. Allen, in the chair.

The PRESIDENT reported that a letter had been received from the General Secretary of the Association intimating that the Central Council had not yet dealt with the new by-laws of the Branch, and would postpone its decision until it could have the advantage of the presence of a representative of the Branch on the Council. It was expected that the services as representative of a member of the Branch who would be in London in July would be secured. A request had also been made by the General Secretary for suggestions concerning any necessary amendments in the constitution of the Association, with special reference to the proposed new charter. The Council of the Branch had appointed a committee to draft a report for early consideration. It was also expected that Sir T. N. Fitzgerald would be one of the representatives of the Branch at the annual meeting of the Association in Exeter in July and August. He also reported that the Council had under consideration amendments of the by-laws to provide for representation of divisions upon the Branch Council, for the supply of the organ of the Branch to all members, and for the appointment as representatives on the Central Council of a member of the Association not necessarily a member of the Victorian Branch.

The PRESIDENT then referred to the death of Dr. J. T. Rudall, formerly hon. surgeon to the Melbourne Hospital, hon. consulting surgeon to the Alfred Hospital, hon. surgeon to the Eye and Ear Hospital, Deaf and Dumb Institute, and Institute for the Blind. He moved that a letter of condolence be sent to the widow and family. This was seconded by Dr. SPRINGTHORPE and carried.

Dr. SPRINGTHORPE gave notice of the following motion:—"That this Association approves of the recommendation of the Victorian Branch of the Australasian Massage Association that the University confer a diploma of massage."

Dr. W. KENT HUGHES gave notice of the following motion:—"That this Association considers it advisable to have one medical journal for Australasia."

Dr. KENT HUGHES showed a case of large mucous cyst of the neck and floor of the mouth.

Dr. ALAN MACKAY exhibited two children on whom he had performed Edebohl's operation for nephritis. The first was a girl of six years of age, who was passing from 15 to 20 oz. of urine with $\frac{1}{2}$ to 1 albumen, and a specific gravity of 1005-12. The oedema was increasing until there was intense general oedema. At this stage Dr. Stawell transferred her to the surgical ward, and Edebohl's operation was performed. The capsules of the kidneys were found floating on a layer of sanguineo-serous fluid and were easily removed. Three weeks later ascitic fluid was drawn off and multiple incisions made in the legs. The oedema rapidly diminished. She has, however, had one attack of oedema since, during which the urine was again scanty and albumen was present. There is still some albumen, and the prognosis is doubtful. A second

case was that of a boy aged 13 years. He had oedema of the face and legs, and was said to have had scarlet fever some time previously. His apex beat was half-inch outside the nipple line. The urine contained albumen and hyaline casts, and he was passing from one to three pints in 24 hours. While in hospital he developed typhoid fever, with a slight relapse. After being normal for a fortnight he had a severe attack of uræmic convulsions. His blood-pressure rose from 140 m.m. hg. to over 200 m.m. hg. Then Edebohl's operation was performed. The kidneys were large and firm, and the capsules were densely adherent and had to be removed piecemeal. Recovery was good. There was no hæmaturia after the operation; the albumen disappeared, but then reappeared for a few days only. There had been no sign of any since, and the lad was able to pursue his usual avocation.

Dr. MOORE cited four cases in which he had performed the operation. The most successful was comparable to Dr. Mackay's first case. It was in a married woman, aged 27 years, with general anasarca and pleural effusion. She was rapidly getting worse, passing only 10-12 oz. of urine, solid on boiling. Edebohl's operation was performed without difficulty, as the capsule was loose and separated from the kidney tissue by a layer of fluid. The patient improved wonderfully in the first few days, and was then stationary for 10-12 days. Then the urine increased and the anasarca diminished. There was steady improvement, the albumen gradually diminishing and the urine increasing beyond the normal amount. She subsequently became pregnant with reappearance of the anasarca. She aborted and the anasarca disappeared, and she was now well to all appearance. In another case with firmly adherent capsule there was improvement for a considerable time, but the condition reappeared later with a fatal result. In his opinion a very limited number of cases did well. The most favourable were those with large oedematous kidneys and non-adherent capsules. Theoretically, they were not good subjects for anaesthesia or operation, but he had not yet seen any ill-effects.

Dr. WOOD stated that a case had been reported where at death, two months after operation, it was found that the capsule had reformed. This would account for relapses, which undoubtedly did occur.

Dr. SPRINGTHORPE stated that Dr. Stirling had operated upon several cases for him, and their conclusions were not favourable as to the value of the operation. Cases should certainly be given more time than those of Dr. Mackay before any claim as to results should be made.

Dr. NHILL took exception to the term "interstitial nephritis," which appeared on the notice paper. Interstitial nephritis in its true sense was rare among children. These were surely cases of acute Bright's disease. As to etiology, it was often difficult to get a history of scarlet fever or other adequate cause.

Dr. ANDREW said that he had been medical resident at the Children's Hospital when these cases were under treatment. There had been an almost dramatic improvement in the case of the girl after operation, while the boy had had the worst attacks of uræmic convulsions possible. These were both cases of acute Bright's disease not clearing up.

The PRESIDENT said that Dr. Mackay's cases were subacute nephritis passing towards a chronic condition, the two cases, however, being of different types. In the first case the improvement was due to the relief of the kidney from fluid, while in the second case explanation was difficult. It was premature to expect

a strong opinion with regard to the operation as yet. However, Dr. Mackay was to be congratulated upon the present improvement in his cases.

Dr. MACKAY, in reply, said that in his opinion death had been undoubtedly averted in both cases. As to any ultimate result he claimed nothing. He would keep the cases under observation, and should a chance occur of completing the histories with post-mortem notes he would communicate them to the Branch. He trusted, however, that such a chance would not occur.

Dr. E. BULLER ALLAN read a paper, "Iodism and the Peculiar Effects of Iodides."

In the discussion which followed, Drs. Springthorpe, McNeill, Rothera and the President took part.

On the motion of Drs. MOORE and LAURIE the further business was postponed.

South Australia.

THE first monthly meeting of 1907 was held on the 28th February at 8 p.m. in the University of Adelaide. Dr. J. Evans (vice-president) occupied the chair in the absence of the President. There was an attendance of 31 members and three visitors.

Exhibits were shown by Drs. Lendon, Todd, Bonnin and Evans.

Dr. TODD showed a man, *æt.* 47, who was the subject of a left thoracic hydatid, for which he was aspirated by Sir Thomas Fitzgerald 24 years ago; two years after that Dr. Thomas, of Adelaide, freely incised a hydatid of the left chest, removing a piece of rib for the purpose. Last year in Western Australia this patient was operated on for a large hydatid in the right lobe of his liver. The cyst was approached by a long anterior incision, and although it is nearly six months since the operation, there still exists a discharging sinus. It would have been better if it had been possible to have drained the hydatid from behind about the right kidney and through the ribs.

Dr. LENDON showed a girl of eight upon whom he had operated some six months ago for cerebral hydatid; the sight was much impaired. Also a case of arthrodosis for infantile paralysis.

Pathological specimens were shown by Professor Watson.

The minutes of the November meeting were taken as read and signed.

Dr. LENDON read a paper on a case of uterine sepsis, in which he tied the ovarian vein. (See p. 120.)

Dr. REISSMANN referring to the use of antistreptococcal serum in this case, said: Although the patient appears to have derived some benefit from the serum, the experience of most of us in the use of such sera has been disappointing. The polyvalent antistreptococcal serum, which is of later introduction, has not proved to be of much greater value than the monovalent variety, although occasionally it produces striking results. I can recall a case of cellulocutaneous inflammation of the arm of a virulent type in a very old man. The disease was apparently about to cause the man's death. In this case large doses of polyvalent antistreptococcal serum (B.W. & Co.) acted in a manner that was truly marvellous, and I think the patient owed his life to its use. Such a case was perhaps the more striking because it is uncommon. It is well known that an immune serum contains two principles—the immune body and the complement. While the immune body is comparatively stable the complement is very unstable. It is thermolabile, and it also decomposes spontaneously or disappears from the serum in the course of time. The sera which we buy in this country are manufactured in Europe. They reach us after many weeks or months, and they have been

subjected to the heat of the tropics on their way. It is therefore probable that many of the specimens which we use contain little complement and some may contain none at all. Such a serum is useless, but it can be revived by the addition of a fresh portion of complement. If, for example, a certain antistreptococcal serum is prepared from a horse in England, and if this serum arrives here with its portion of complement destroyed, it is possible to restore the full potency of the serum by the mere addition of a certain quantity of the normal serum of any healthy horse; for the serum of this animal, though unprepared by vaccination, will contain an abundance of complement. There should be no difficulty for a firm here to prepare normal horse serum and to supply it to the profession in small glass vials. One would then use with each vial of the imported serum a vial of normal serum of local manufacture. If antistreptococcal sera are effective in the treatment of animals that have been experimentally infected, then they should be effective also in infected human beings. If they fail the technique is probably at fault, and we must strive to discover and remove the error.

Several other members also spoke.

Dr. E. L. BORTHWICK then read notes on a recent case of sudden death. The speakers following him sympathised with him in his experiences at the subsequent inquest.

Dr. W. T. HAYWARD said it was difficult to conceive, despite the negative analysis, that Dr. Borthwick's patient died from any other cause than strychnine poisoning, and he was sure that every member would agree that Dr. Borthwick acted rightly in refusing to give a death certificate and taking steps to ensure that an inquest should be held. This was the opinion of the Council of the Medical Defence Association, to whom the case was reported, and also the fact that the Coroner had refused to hold an inquest, but had issued a certificate of burial ascribing death to "cardiac failure." The Council felt that either the Coroner had not been made acquainted with the circumstances of the case or else that there had been a grave dereliction of duty, but preferred to think that the former alternative was the correct one; a letter was therefore sent to the Attorney-General drawing his attention to the case. As a result an exhumation of the body was made and an inquest held. The Coroner, as they knew, had in consequence made a bitter (a more forcible adjective might fairly be used) attack on the Association, or rather the members of the Council, and had treated Dr. Borthwick as if he had been a felon. The attack on the Association was immaterial, but he was sure that members would express their sympathy with Dr. Borthwick in being exposed to such public vilification for doing only what was his duty.

Queensland.

A MEETING of the Branch was held on Friday, Maron 1st, at the Technical College, Brisbane; Dr. Lockhart Gibson in the chair, and an attendance of 15 members.

Dr. CONSTANCE COOPER exhibited the spleen of a child which had been ruptured by a bullet wound, causing death.

Dr. D. CAMERON exhibited a hairpin completely encrusted with phosphates, which had been removed from the bladder of a girl of five.

Dr. CONSTANCE COOPER exhibited a child, aged 10, who suffered from fragilitas ossium.

Correspondence with reference to the application by the Parent Association for a Royal Charter was referred to the Council.

The appointment of a delegate to the annual meeting of the Association was postponed.

Dr. BYRNE read a paper upon a series of 90 cases of abdominal operations, which was freely discussed.

It was resolved that the Mayor should be asked to receive a deputation of the Branch to lay before him their views on the question of septic tanks.

REPORTS OF OTHER SOCIETIES.

Medical Benevolent Association of South Australia.

THE annual meeting was held on January 29th, 1907, when Dr. W. L. Cleland presided over a small attendance of subscribers, in the unavoidable absence of the President (Dr. T. W. Corbin).

The minutes of the last annual meeting were read and signed.

The HON. SECRETARY (Dr. J. B. Gunson) read the annual report and submitted the balance sheet—both adopted.

The trustees (Drs. Corbin, Cleland and Gunson) were re-elected.

BALANCE SHEET.

1906.	£	s.	d.
January—Brought forward	572	13	5
„ Subscriptions 1906	38	17	0
June—Interest (Savings Bank)	6	4	4
June-Dec. Int. (Gov. Stock)	12	0	0
	£629	14	9
Dec.—By Government Stock	£400	0	0
„ Savings Bank	211	2	0
„ Legal expenses, etc., for re-incorporating Association, etc.	8	12	9
„ Donation to doctor's widow	10	0	0
	£629	14	9

January, 1907.—Credit balance, £611 2s.

JOHN B. GUNSON, Hon. Sec.

Audited and found correct.

W. T. HAYWARD.

OBITUARY.

LIEUTENANT-COLONEL G. F. MCWILLIAMS, P.M.O., Commonwealth Military Forces, West Australia.

We regret to record the death of Lieutenant-Colonel Dr. G. F. McWilliams, which occurred at Perth, W.A., on February 12th. He was the son of Wilson McWilliams, of Melbourne, and was born at Geelong, Victoria, in 1865. In his early days he went to England and passed the junior examination at Cambridge. He returned to Victoria, and graduated M.B., Ch.B. at Melbourne University in 1889. He went to West Australia in 1889, just after taking his degree. He was a member of the Legislative Assembly for North Perth from 1902 to 1904, and held prominent positions in many local institutions.

He was an enthusiast in connection with military matters, and was medical officer to the first Western Australian contingent throughout the South African war, and on his return was promoted to the rank of Lieutenant-Colonel. He received the Queen's medal with five clasps for his services during the Boer war; the Order of St. John of Jerusalem for his efforts in

connection with the St. John Ambulance Society, of which he was the founder and president in Western Australia; and the King's coronation medal. Had he lived a few months longer he would have received the volunteer officers' decoration, in addition to those previously bestowed upon him. He was suffering for some time from gastro-enteritis; subsequently, pneumonia developed, and he died from heart failure after a week's illness. He was accorded a military funeral, which was largely attended.

WILLIAM BAILEY RANKIN, L.R.C.S. (Ed.), 1850; F.R.C.S. (Edin.), 1878, St. Kilda, Victoria.

The death is announced, at the age of 81 years, of Dr. W. B. Rankin, of St. Kilda. The deceased gentleman was a well-known figure in medical circles in Victoria. He arrived in Melbourne in 1852, and for 14 years practised in Buninyong and Ballarat. In 1864 he removed to St. Kilda, where he was in active practice until about 1901. For the past three or four years he has been a confirmed invalid. Dr. Rankin was the first surgeon at the Alfred Hospital, and for many years was surgeon at the Ballarat Hospital. He has left four sons and five daughters, one of the former being Dr. R. P. Rankin, of Dookie, Victoria.

J. T. RUDALL, F.R.C.S. (Eng.), 1857, Melbourne.

By the death on March 4th of Dr. James Thomas Rudall, Melbourne loses one who, during a residence of nearly 50 years, had done much to raise the tone and maintain the standard of the profession in Victoria. He was one of the original members of the Victorian Branch of the B.M.A. He for some years held the position of surgeon to the Melbourne and Alfred Hospitals. His connection with the latter institution was maintained until his death, in the capacity of honorary consulting surgeon. For many years past he had confined himself to ophthalmology, and for many years was one of the leaders in that branch of the profession. His professional services to the Deaf and Dumb Institute and Institute for the Blind have been pre-eminent in their usefulness. After a long, useful and honoured career he has departed, deeply mourned. He leaves a widow, one son (Dr. J. F. Rudall) and a daughter.

Dr. James Martin, of Middlemarch, N.Z., brother of Dr. R. Martin, of Dunedin, was found dead, lying on the side of the road, near Moonlight, badly cut about the head. Dr. Martin was 54 years of age, and was in practice for some years in Dunedin in conjunction with Dr. Robert Martin, before he proceeded to Middlemarch. He was a quiet, unassuming man, and his death is deeply regretted by all who were acquainted with him.

Dr. A. D. Kearney, who for some little time has been a patient at Alfred Hospital, Victoria, died on March 10th, 1907. For many years he was champion lawn tennis player of Victoria. Dr. Kearney was also a well-known football player and a leading rifle shot.

At a meeting of Molong Hospital Committee Mr. Holt moved that in any case where drugs, dressings, etc., were needed, the same be procured locally at a cost not exceeding 10 per cent. on the Sydney wholesale prices. The motion was opposed, on the ground that the committee were not entitled to pay more for supplies than they could procure them for elsewhere, and was defeated by six votes to three.

REVIEW OF CURRENT MEDICAL LITERATURE.

MEDICINE.

Chronic Adhesive Pericarditis.

Sicard read a paper on this subject before the New York Academy of Medicine (*Medical Record*, January 12th, 1907). He said that among 2000 autopsies at the Presbyterian Hospital, there were 77 cases of fibrous pericarditis, or about 3½ per cent. of the post-mortem examinations. Forty-five of these 77 were extensive, involving the greater part of the sac; 32 were slight. There was but one case of mediastino-pericarditis. In 33 of these 77 there was existing endocarditis; in 5 gross myocardial changes occurred; in 15 there was marked sclerosis of the coronary arteries; in 4 severe aortic sclerosis; in 4 aneurism; and in 33 chronic diffuse nephritis. Of these 77 cases, 9 were tuberculous, 4 having pulmonary tuberculosis and 5 having general miliary tuberculosis. Among the 2000 autopsies there were 329 cases of chronic endocarditis, so that chronic pericarditis formed about 5 per cent. of the cases of chronic valvular disease. At St. Mary's Free Hospital for Children, out of 97 autopsies there were 5 cases of adherent pericardium; there were also among this number 4 cases of pyopericardium with considerable thickening, but without actual adhesion. Symptomatically he divided the disease into a number of fairly well-defined classes: (1) Cases that ran a latent course, and were only discovered upon the autopsy table; (2) those cases in which one, during a routine examination, discovered a harsh systolic murmur over the pulmonary area, increased by pressure and by leaning forward, the pulmonary second sound being accentuated; (3) cases with circulatory embarrassment, palpitation, irregularity, and intermission of heart-beats, sometimes precordial pain, with moderate general hypertrophy, and sometimes tenderness over the base of the heart. No murmur or friction sound was heard to account for the cardiac change, and so only a tentative diagnosis was made from the absence of direct signs; (4) cases with adhesion between the outer surface of the pericardium and the neighbouring structures; here there would be considerable enlargement of the heart, with diffuse pulsation of the precordium and systolic retraction of the apex; the heart was pretty well fixed by adhesions; paradoxical pulse might be present; (5) severe cases of mediastino-pericarditis resembling the last group except that the mediastinal inflammation was more widespread, with consequently more serious changes in the abdominal viscera. These patients suffered from cyanosis and dyspnoea, and constantly recurring ascites. A curious appearance was the frosted or iced liver, "Zuckerguss leber," a white, fibrous, thick mass of connective tissue coating the liver and leading to much irregularity and distortion. The picture in this last group of cases was enlargement of the liver and ascites, and it was difficult to differentiate it from cirrhosis of the liver. The chief factors of distinction were absence of the cause of cirrhosis, non-dilatation of the superficial veins, absence of the common symptoms of liver obstruction—as hæmatemesis, jaundice, hemorrhoids, diarrhoea or constipation, signs of chronic pericarditis. In mild cases patients died of intercurrent disease which had nothing to do with the pericarditis. In severe cases there was a gradual cardiac failure due to increasing dilatation. Sudden death might occur at any time from myocardial degeneration or coronary sclerosis.

Glycosuria and Diabetes.

Barrington and Roper read a paper on "The Prognosis of Cases of Transient Spontaneous Glycosuria, and the Relation between this form and Alimentary Glycosuria" before the Royal Academy of Medicine of New York, of which the following is a summary:—(1) After the end of five years, 20 per cent. of a group of 20 cases of spontaneous glycosuria had become diabetic, 15 per cent. had become suspicious cases, and 10 per cent. somewhat suspicious; 55 per cent. had remained free from diabetes. (2) Eight out of 11 cases of spontaneous glycosuria, in which sugar recurred, became diabetic or probably diabetic. (3) The alimentary glycosuria arising from glucose or cane sugar, provided the test was properly conducted and repeated at intervals, afforded a valuable aid to prognosis in cases of spontaneous glycosuria. A positive test was of much more value than a negative test. (4) Alimentary glycosuria following the injection of sugar was essentially diabetic in nature. They found that at the end of five years but 45 per cent. at the most of their cases had become diabetic. If it was possible, as they believed, to detect these cases at a relatively early date, it would not seem necessary to maintain a permanently restricted diet in all cases. If a small quantity of sugar was found in the patient's urine, and there was no history of over-indulgence in sweets, he should be placed on a restricted diet, and the reaction to the glucose test should be frequently ascertained during the next six months. If the reaction were positive, the restricted diet should be continued, even though the spontaneous glycosuria had not recurred. If the reactions were negative, and sugar did not reappear, a restricted diet would seem superfluous. The conflicting opinions as to the essential nature and diagnostic worth of alimentary glycosuria might be harmonised by more observation of the cause of cases of spontaneous glycosuria, and by the frequent determination of their reaction to the glucose test.

Dermoid Cyst of the Anterior Mediastinum.

Griffin (*Boston Medical and Surgical Journal*, January 5th, 1907) reports the case of a boy of 15 years of age who was the subject of this condition. His family history was good. When 3 years of age he had some catarrh of the intestine. At 10 years of age he had a little hacking cough lasting for a short time, and in the last two or three years there had been occasional attacks of cough, but no expectoration. There had never been any fever so far as was known, and never any pain except about eight months previous to his coming under observation, and this was not severe. At about the same time that the pain was noticed, the patient began to be short of breath and to have huskiness of the voice. Two months ago the patient's mother noticed that the right side of the chest was fuller in appearance than the left. On examination it was noticed that the patient was pale and rather thin. His muscular development was poor, and he stooped on walking. Examination of the chest revealed dullness on the right side beginning at the second rib, the note rapidly becoming flat on going downward, and merging into the liver dullness. The dullness extended upward under the sternum to the level of the first interspace, and merged to the left into the heart dullness. The respiratory sounds were much diminished over this area, and tactile fremitus could not be felt. Behind there was good percussion note throughout on the right side, except for slight dullness below the angle of the scapula. Here respiration was bronchial in character, and tactile fremitus was a little increased. A few fine râles could be heard here. At the top of the chest

on both sides the respiratory murmur was exaggerated. The left border of the heart could be made out two finger-breadths outside the nipple line, and the lower border of the liver was just below the costal margin. In the right axilla there was a gland the size of an almond, and in the right side of the neck there were one or two the size of a pea. Urine and blood examinations were negative. At this time the diagnosis lay between an encapsuled pleuritic effusion and malignant growth. A large-sized aspirating needle was introduced in the fifth interspace in the anterior axillary line, and with considerable difficulty about two ounces of thick, glairy, dark green fluid was obtained. This fluid showed nothing characteristic under the microscope, and was sterile on culture after 24 hours. Next day the pleural cavity was opened by removal of a portion of the sixth rib in the mid axilla. By this means a small amount of the same viscid fluid was obtained. On looking into the wound a tense tumour mass was seen on a level with the incision. Into this a trocar was introduced and more fluid obtained, together with a number of bright yellowish masses varying in size from a pinhead to a pea. By enlarging the opening into the cyst the wall was explored with the finger. It was found to be a quarter of an inch in thickness and firm in structure. On that part of the wall nearest the diaphragm three or four sessile projections could be felt. This was the only wall of the cyst to be made out. On examination of the fluid a few short hairs were found, and the diagnosis of dermoid cyst was made. Subsequently a second operation was undertaken. The pleural cavity was freely opened, and an opening made into the cyst large enough to admit the hand. Much pus and broken down caseous material was found. The cyst was found to extend from the second rib to the diaphragm and across the median line under the sternum at the level of about the third rib, practically filling the right half of the thorax and part of the left. It was filled with irregular grape-like masses to which grew sparse long hairs, and which were attached to the wall by short pedicles and bands of connective tissue. After the operation the patient rallied for a time, but then gradually sank and died, the tumour having grown rapidly and caused much bulging of the chest during the last two and a half months of life. Macroscopic and microscopic examination of the tumour masses removed confirmed the diagnosis of dermoid cyst. In parts it was embryonal in type and very cellular, with evidence of rapid proliferation.

Addison's Disease due to Trauma.

Bowman (*Deutsches Arch. f. Klin. Med.*, vol. 86, 1905, abstracted in *Medica' Chronic'*) remarks that the suprarenal bodies are diseased in 88 per cent. of the cases of Addison's disease. Tuberculosis, syphilis, tumour, and atrophy are the lesions more frequently found. Marchand has described a case in which the suprarenals were involved in a growth of connective tissue and were enlarged. The writer now brings forward a case of Addison's disease, which is, he claims, the first in which trauma has undeniably been the cause of the condition. The patient, a robust, healthy looking coal-heaver, fell off a cart and bruised his right side against the corner of an open chest. He broke his ninth right rib, and received a severe contusion of the lower part of the right side and back. He was short of breath for eight days, and lay in bed for several weeks. In three months he could do light work, in six months he returned to his ordinary work, but still had some pain in the right side. Twelve months after the accident it was noticed that he was becoming very

affected. A month later he noticed numerous bluish-black spots on his lips, gums, and the inner sides of his cheeks at the level where the teeth met. During the next four months he became weak, lost weight, and suffered from pain, vomiting and salivation. He was treated with a full diet and tablets of suprarenal gland. At first he wasted still further, but 22 months later, i.e., over three years after the injury, he was able to do some light work, and to bicycle. Four years after the accident he complained of gastric disorder, vomited frequently, and had much pain; a few days later he had an attack of heart failure and died in 48 hours. At the autopsy the skin and buccal mucous membrane were found to be much pigmented and brown. The right lung was adherent all over to the pleura, and the upper surface of the liver adherent to the diaphragm. The pericardium contained a sero-fibrous exudate. The left lung, heart, spleen, liver and kidney showed no marked abnormality. The site of the left suprarenal was entirely occupied by a hard, grey-white mass of fibrous tissue with a necrotic centre. No suprarenal tissue was left; the solar plexus also was largely involved in the fibrous tissue. A similar but smaller hard fibrous mass completely replaced the right suprarenal also. The eighth, ninth and tenth ribs on the right side showed evidence of having been fractured. The prevertebral fibrous tissue between the two suprarenal tumours was much increased. Microscopically, no evidence of either tubercle or syphilis could be found in these two tumours. They were composed of chronic inflammatory connective tissue, mostly still in a florid and proliferating condition. They contained scattered areas containing yellow and brown pigment, which was doubtless the residue left from old hæmorrhage. The sympathetics were involved in the fibrous tissue and showed atrophy of the new fibres and ganglia cells. The writer believes the condition to have been excited by trauma.

Sahli's Reaction in Gastric Diagnosis.

Boggs (*Bulletin of John Hopkins Hospital*) describes this reaction. In order to carry out this test, a pill of methylene blue or iodoform, or both together, is placed in a rubber sac. This sac is made by twisting the pill in the centre of a square piece of thin rubber. The twisted neck is tied with three turns of No. 00 raw catgut, previously soaked until soft in cold water. The knots are made on the same side of the bag. This test causes the patient no distress, and as it is given at the principal meal, it is subjected to the activities of the gastric functions when they are at the height of their stimulation. The desmoid pill is relatively heavy, and so remains in the stomach for the maximum length of time. It thus fully tests the activity of the gastric juice. It often gives a positive result when, with the test breakfast, an absence of free HCl is indicated. As Sahli pointed out, this is a matter of considerable diagnostic importance in distinguishing cases with true achylia, carcinoma, or pernicious anemia from less serious disorders, in which the Ewald breakfast is insufficient to cause an excess of HCl. Boggs examined 34 cases in which there was impairment of gastric function, in addition to 12 normal persons. The latter were all positive. In the carcinoma cases, all but one gave a negative test. This patient was an ignorant negro, in whose case the test was unsatisfactory, and could not be repeated. All of the seven cases of pernicious anemia gave negative tests. A case of secondary anemia of long duration gave a positive test. Various other interesting negative tests were observed. In each case, with two exceptions, the result of the test compared with the findings of the

result of these experiments seems to bear out Sahli's contention that the desmoid pill does show the ability of the stomach under the best conditions. Boggs believes that its principal value is as a test for free HCl, but it cannot replace the test meal. In the stool of the negative cases the pills which were found showed no evidence of digestion, yet in most cases the intestinal digestion of foods, including meats, were good.

PATHOLOGY.

The Cerebro-Spinal Fluid in Acute Anterior Poliomyelitis.

Several investigations have recently been made on the cerebro-spinal fluid in cases of acute anterior poliomyelitis. Ellermann twice found in the cerebro-spinal fluid of a patient with this disease, amœboid, homogeneous cells, 15 to 25 μ in diameter, with numerous long flagellæ. He thinks they are protozoa. Further investigation must show whether these cells occur constantly in the disease or whether they are only accidental. Geissvold found the same bacteria in eleven cases of acute poliomyelitis and one of polioencephalitis. The organism corresponded in every way with those found by Looft and Dethloff in two cases of poliomyelitis. The organism is a pear-shaped diplo- or tetra- coccus with the flat sides opposite each other, which in fluid media often forms short chains. It grows well in the ordinary culture media. It is stained by Gram as well as by the ordinary aniline stains. Subcutaneous injections either killed white mice after 24 to 36 hours, or after being sick some days they apparently recovered only to become suddenly paralysed after three or four weeks. The paralysis was most frequent in the hind legs. The paralysis increased, and at the time of death were accompanied by marked atrophy. The virulence of the organism is increased by the passage through mice. Similar paralysis developed in rabbits and pigeons after intravenous injections. They cultivated the same organism from the pharynx of patients with poliomyelitis. This organism was also pathogenic for mice.

Filtration through Animal Membranes.

Hertz (*Zeit. f. Physiol. Chem.*, vol. xviii., 1906) published a paper on this subject, of which he gives the following summary. The percentage of salt in edema fluids and the effusion into serous cavities is generally slightly greater than that in the blood, although the amount of albumin is always much less. Runeberg and Senator have attempted to explain this as a result of the peculiar influence that animal membranes exert on fluids which filter through them. It is well known that on filtering a salt solution through an animal membrane outside the body the concentration of the filtrate is the same as that of the original fluid. But Hoppe-Seyler, Schmidt, Runeberg, Loewy and Cohnstein found that the filtrate contained more salt than the original solution if albumin was present with it. As the blood contains albumin, this result was believed by Runeberg and Senator to be applicable to the formation of serous effusions, and to explain the formation in the body of fluids containing more salt than the blood. Hertz has found that the filtrate through a number of different membranes of various albuminous fluids in which salt is present contain exactly the same percentage of salt, and has the same freezing-point as the original fluid. The results obtained by previous observers, which were by no means constant, appear to be due to insufficient precautions against the evaporation of the filtrate, as this would cause an apparent increase in the concentration of the salt. Filehne and Biberfeld subsequently published a paper in which they attempted to prove that filtration does not occur at all in the body, and that in the experiments

in which it is believed to occur outside the body, the membranes had holes in them due to post-mortem changes. They considered that the membrane of a hen's egg was the only membrane which was sufficiently homogeneous to be suitable for filtration experiments. They attempted to filter fluids containing Indian ink through this membrane, as they considered that a colourless filtrate would alone be sufficient evidence that filtration and not passage through holes due to injury had occurred. In none of their experiments did they succeed in obtaining any evidence of filtration. Hertz repeated these experiments with egg membrane, and found that a perfectly clear and colourless filtrate passed through even at low pressures when attempts were made to filter water and various albuminous solutions containing Indian ink. The filtration was slow, as might be expected from the fact that the only function of an egg-membrane is to prevent the passage of its contents outwards. The negative results of Filehne and Biberfeld were clearly shown to be due to evaporation of the filtrate from the under surface of the membrane, owing to slow filtration; the surface area, from which evaporation could take place, was so great compared with the amount of fluid, that the fluid which remained was insufficient to form drops heavy enough to fall into the vessel below, unless special precautions were taken to avoid evaporation. Clear filtrates were also obtained on filtering similar fluids through a large number of different animal membranes, showing that genuine filtration could occur through these in spite of the absence of the holes, which Filehne and Biberfeld imagined to be present. Thus filtration can occur through animal membranes outside the body, and there is still no evidence to show that it does not also occur within the body.

Primary Carcinoma of the Appendix.

Landau (*Berlin. Klin. Wochenschrift*, December 10th, 1906) urges the desirability of inspecting the appendix in all cases of laparotomy and removing it when any abnormalities are present. He makes this remark *apropos* of a case of laparotomy made for the purpose of enucleating a uterine fibroid and removing an ovary and tube. The appendix was found stiff and sharply bent on itself with a somewhat enlarged extremity, and was therefore removed. On microscopical examination it was found to be the seat of typical carcinoma. He says that 64 cases of the disease have been reported, and thinks that the lesion will be observed much more frequently now that attention has been directed to it.

Resistance of the Spores of Bacillus Anthracis.

Santi Sirena (*Archivio per le Scienze Mediche*, abstract in *Medical Record*, January 5th, 1907) has shown that spores of the bacillus anthracis, when dried in the hot sun in free air, live for 19 days; in the thermostat in dry air they live 406 days; when dried by chemicals they live a longer time. Creolin up to 60 per cent. strength does not destroy them, but when used pure it kills them in 24 hours. The bacilli are killed in fresh blood after ten minutes by 10 per cent. creolin, and after 20 minutes in the spleen of a diseased animal. In sterilised garden earth they lived 15 years. In damp earth they lived four years. In earth saturated with moisture they lived 13 years. In sea water they lived 8 years. In sterilised water they lived more than 8 years. In pregnant animals they passed from the mother to the foetus by way of the maternal and foetal placental vessels. They were found in the chorion and in the placenta in great numbers. There were alterations of the muscular and epithelial layers of the uterus, consisting of hyperæmia, dilatation of the vessels, and extravasation of blood. There were also extravasations in the serotina.

PÆDIATRICS.

Head-nodding with Nystagmus in Infancy.

Still (*Lancet*, July 28th, 1906), in a lecture on this subject, states that 31 cases have been observed by him, 19 of the patients being boys and 11 were girls (the sex in one case was not noted). In the majority the onset took place between the ages of five and 12 months. He gives the three leading symptoms as head-nodding, a tendency to look out of the corner of the eyes, and the nystagmus. Regarding the head movement, this may be an antero-posterior, affirmative nod, or a lateral shake of the head; sometimes, too, they vary, being at one time antero-posterior, at another lateral, or the two more rarely may be combined. The rate of movement varies from 60 to 120 nods per minute. In some cases the movements can be stopped by attracting the child's attention. The head movements occur only when the child is sitting with the head unsupported, and never when the child is lying in his cot. It must be distinguished from head-rolling, which occurs chiefly when the patient is lying down. The range and vigour of the movements vary considerably, but they are always involuntary. Such children have a tendency to fall into an absent-minded stare, which seems unnatural to an infant. The child, however, takes notice when attention is drawn to a sight or sound. There is no special liability, as has been stated, for such children to develop "petit mal." The habit these children have of looking out of the corner of their eyes is always very suggestive. The nystagmus shows a unilateral predominance, and its onset without apparent cause in an infant of a few months should lead to suspicion of head-nodding. It is always exceedingly fine and rapid. This symptom may precede the spasmus nutans by several weeks or even months. Referring to the aetiology of the condition, the writer remarks that rickets is present in a large proportion of cases. As a rule, such evidence is quite definite, but usually slight in character. Its relation to dentition is specially noteworthy, and the affection rarely persists after the end of the first dentition. Other forms of peripheral irritation may, however, act as the exciting cause, such as convalescence after a severe illness or accident. The defective light theory of its origin cannot readily be accepted. The condition occurs in children living in well-lighted houses. The seasonal incidence of the disease is remarkable. In 21 of Still's cases, the onset could be dated with some degree of accuracy, as follows:—January, 7; February, 5; March, 1; April, 0; May, 0; June, 0; July, 1; August, 0; September, 2; October, 1; November, 1; and December, 3. Thus, 17 out of 27 cases began with the three months December to February; only one began during the five months April to August. The prognosis of spasmus nutans is good. The condition usually passes off after a few months. It has no special relation to epilepsy. Such children do not become specially backward. We may, therefore, as a rule, give an unqualified good prognosis. The treatment consists in the administration of sedatives, and phenagonum seems better than bromides in such cases. At six months old, half a grain, and at one year old, one grain of phenagonum may be given. In some cases the writer has given a combination of bromide with codliver oil, apparently with good results. The part played by rickets in predisposing to spasmus nutans suggests also the advisability of inquiring into the feeding and correcting any fault which may favour the rachitic tendency. Cold and tepid douches, as the

infant sits in a warm bath, tends to reduce the nervous irritability, while confinement in a close, ill-ventilated room, whether well or ill-lighted, always increases the instability, and must therefore be forbidden. Such children must be kept out of doors as much as possible. By such means permanent cure will be brought about.

Persistent Ductus Arteriosus.

G. A. Gibson, in a clinical lecture (*Medical Press*, May 30th, 1906), emphasises the points on what a diagnosis of this lesion may be made. Two physical signs are characteristic. In the third left intercostal space, close to the sternum, there is on palpation a long thrill following the apical impulse, and continuing beyond the recoil of blood on the semilunar cusps, the closure of which may be felt; on auscultation a murmur begins after the commencement of the first sound, but before it ends, and is continued through the systole and second sound into the diastole, when it dies away. The murmur is rough in character, is most intense at or immediately after the second sound, which may be accentuated or doubled in the pulmonary area. There may be no shortness of breath, cyanosis, oedema, enlargement of the heart, or other evidence of circulatory disturbance. The possibility of diagnosis has been doubted, but the author relies on the confirmation afforded by at least one necropsy.

The Treatment and Cure of Intractable Vomiting of Breast-fed Infants by Sterilised Milk and Citrate of Soda.

M. G. Variot (*La Clin. Infant*, July, 1906, p. 410), in a communication to the Soc. Méd. des Hop., says that the causes of this kind of vomiting are numerous, and are as yet imperfectly known; it forms, for instance, an essential part in the clinical picture of congenital structure of the pylorus, but this singular lesion is rare and exceptional, while intractable vomiting is far from being so. For the last two years citrate of soda has been employed in these cases with unparalleled success. In simple cases the administration before each feed of a tablespoonful of the following solution is sufficient to stop the vomiting in 24 to 48 hours:—Distilled water 250 grammes citrate of soda, partly prepared 5 grammes simple syrup 50 grammes. The disappearance of vomiting is effected without changing the milk in breast-fed infants, but in some obstinate cases this may be necessary, or among the poor by substituting sterilised milk. Three typical cases are described in detail. Analysis of the woman's milk vomited by the infants being negative, it is presumable that it contains toxic substances which provoke by reflex action a hyperexcitability of the muscular coats of the stomach. A number of observations on the atrophy of breast-fed infants are in favour of the toxicity of certain milks, either that they cause the vomiting or are psychologically useless and cannot furnish material for growth. Toxines seem to be contained in the milk in infinitesimal quantities, without the possibility of their being detected chemically. As Schloessing says, "What is most important in the composition of milk is probably what we do not yet know." But in spite of the meagreness of scientific data, great progress has been made in the treatment of these cases by the introduction of citrate of soda.

MEDICAL MISCELLANY.

The Massachusetts Cremation Society reports for the year past the largest number of cremations of any single year hitherto. There were 238, eight more than the previous highest number in 1899.

In view of the prevalence of rabies in certain portions of Massachusetts, Dr. A. J. Peters, of the State Cattle Bureau, has been given increased authority in relation to the muzzling of dogs.

The Stillman Infirmary in Cambridge, connected with Harvard College, is each year proving of great service to those to whom it ministers. This plan to provide adequate medical treatment for students at the University, who may for various reasons not be able to be treated at their own homes, has proved a decided success, and there is rarely a time when there is not a considerable number of patients at the hospital.

In his first message to the Legislature (Boston, U.S.A.), Governor Hughes recommends that careful consideration be paid to the important subject of child labour. Children under 16 should have an eight-hour day. Such a provision would aid the administrative officers in their enforcement of the law. In order to protect children against dangerous employments there should be a more precise prohibition, specifying the occupations in which children under 16 should not be employed, since general prohibitions as to such matters are apt to be found inoperative.

In the main hall of the South Kensington Museum there are some models illustrating malarial and trypanosome diseases. The tsetse-fly is upon a colossal scale, and looks like a dragon two feet long. A coster, after gazing at the model, said, "It ain't much wonder as them 'orses in South Africa 'ad a thin time, if there's many o' them flyin' round."

The Ottawa City Council has been advised by the Ontario Board of Health that if the city will erect a sanatorium for consumptives in the vicinity of Ottawa the Government will give a grant of \$4000 towards the building fund and contribute \$1.50 per week per patient towards maintenance. The City Council has approved of the proposal.

It is announced that a bill will be introduced by a medical member of the next State Legislature to prohibit the sale of cocaine within the State and to prevent, as far as possible, the manufacture of "patent medicines" in Alabama.

The Cancer Hospital at Dundee (Scotland) Royal Infirmary is now open for inspection. The hospital was given to the infirmary by Mr. J. H. Caird, who has offered £5000 annually for five years' research work in connection with cancer.

The Senate of the Vienna University has taken a very effective step *re* the fight against venereal diseases. Every student matriculating at the University is handed a leaflet, containing in short, clear sentences the necessary information as to the nature of venereal diseases, the immediate and remote dangers and sequelæ, and in case of disease to seek immediate competent medical help. Clubs and friendly societies and also insurance companies no longer make venereal diseases a pretext for not paying the sick insurance money.

In spite of the work of the British Goat Society, it is surprising that there should be any hesitancy in admitting the superiority of goats' milk over that of cows' for infant feeding. Goats' milk is primary more digestible, because its casein forms only a flocculent curd, and the infant does not suffer from a tendency to accumulation of hard, cheesy masses as with cows' milk. The goat is singularly resistant to tuberculosis. The nourishing power of goats' milk is as high as that of cows' milk, and is very efficient as the sole food of an infant up to the age of six or eight months. Provided the goat is kept under cleanly conditions and apart from any association with the male of the species, there is no unpleasant smell or odour attached to the milk.

Chloroform water has been employed as a hæmostatic agent; it is claimed to be superior to other styptics, acting with marvellous rapidity. It is not escharotic; the solution recommended is 2 per cent. in simple water as the menstruum.

The wiles of the pretender to medical status is exemplified by the fact that a certain individual applied to a shipping office for the post as surgeon on a steamer, and handed in his address card. The head of the office being suspicious sent the card to the editor of the "South African Medical Record." It ran, L.M.R.C.P., L.S.S.A.

Robert Koch has reported officially to the Secretary of the Interior at Berlin that he has found atoxyl, a preparation of arsenic, as truly a specific for sleeping sickness as quinine is for malaria. Experience with hundreds of cases in one of the islands in the Lake Victoria Nyanza, in the heart of Africa, shows that the trypanosomes vanish from the glands by the eighth hour after subcutaneous injection of the remedy. Instead of giving the drug according to the usual technic for arsenic, Koch follows the rules for quinine, giving 0.5 gm. on two consecutive days. No by-effects were ever noted.

We have heard of medical advice being given gratis to the purchaser of a pound of tea, but to get physic and advice with a supply of coal is quite a novel idea. It is reported that a company is being formed in Manchester to combine the business of coal merchants with a scheme for free medical advice and medicine to customers and their relatives, employing a qualified doctor when necessary. The scheme is further explained in the following lines:—

We have a scheme,
The best we deem,
Its problems so excite us;
We cheer your nights
With Derby Brights,
And cure appendicitis.
We give away
By night and day
Cough-pills and egg-emulsion,
And if need be
Our own M.D.
Will cure your child's convulsion.
We heal your cuts;
Our Kitchen Nuts
Dispel all collywobbles.
Ensure your health
And guard your wealth
By buying tons of Cobbles.

—*Medical Times and Hospital Gazette.*

Report on the Nature, Causes, and Means of Prevention of Miners' Phthisis.

To the Committee of the Bendigo Hospital, Victoria, by
Walter Summons, M.B., Bendigo, Vic.

(Abstracted by Dr. Henry Laurie, St. Kilda, Vic.)

In this report on "The Nature, Causes, and Means of Prevention of Miners' Phthisis" Dr. Summons refers to an earlier preliminary report on the "Ventilation of the Bendigo Mines." The main recommendations in that report from the medical point of view are the following:—1. The rigid enforcement of section 45 of the Mines Act treating of the allaying of dust. 2. The adoption of a higher standard of ventilation, CO₂ not to exceed 15 parts by volume in 10,000. 12. Suitable cleanly sanitary receptacles should be provided underground in case of necessity. Similar receptacles are also necessary for waste food. 13. It is recommended that a medical inspector of mines be appointed. 14. No miner suffering from tuberculosis or other infectious disease be allowed to enter underground workings, and no manager shall employ such a person knowing that he is so affected.

Statistical.—For the determination of the extent to which phthisis and respiratory diseases prevail amongst Bendigo miners the death registers of the district were perused, the search being carried backwards for 30 years. This period was chosen, as prior to the year 1875 machine rock drills were not in common use. With these the amount of dust produced underground was largely increased. During the period there has been a marked increase in the number of miners dying of lung diseases, notably tuberculosis. Prior to 1880 the detrimental effect of the machine drills had not become manifest. But since their coming into general use the increase in the death rate has been progressive, and during the last 18 months it has been so excessive that the outlook is indeed fraught with the gravest forebodings.

The total number of deaths recorded as resulting from tuberculosis of the lungs is 901, while those from chronic bronchitis amount to 280, and, as shown in the clinical notes, these with more accuracy should be classed as tuberculous. The total deaths from lung diseases has risen from a rate of 77.0 to one of 204.4 per 10,000, and this is largely accounted for by the increase in the tuberculous diseases which, represented by 48.5 in the first period, now amounts to 142.4 or nearly three times as great. The corresponding mortality for Victoria as a whole is less in 1903-5 than at any previous time. It is found that the number of deaths amongst miners from tuberculosis is at the present seven times as great as amongst adult males in Victoria generally. This affords ample evidence of the detrimental conditions under which quartz mining is carried on; also, while the prevalence of the disease is diminishing amongst the general population the number of miners affected is rapidly increasing. The ill effects are even more reaching, and tuberculosis, in spite of the health-giving climate of Bendigo, is in excess amongst non-miners as well. The female death rate best exemplifies this. Throughout Victoria the number of deaths per 10,000 females living is 9.26, while the corresponding number for Bendigo is 12.03. Owing to these increased rates Bendigo had a total consumptive death rate in 1903-5 of 22.24 per 10,000 of population, as compared to 10.78 for the whole of Victoria, whereas in 1870-72 the corresponding figures were 16.61 and 11.85 respectively. Thus the death rate of Bendigo is one of the highest in the world and is twice that of Victoria generally.

People suffering from chronic chest diseases are attracted to Bendigo by its mild winter season. This, however, is not a great factor in the high consumptive death rate, as the visitors frequently return to their own homes before the final end comes.

The majority of the miners affected die in the prime of life, and the average age year by year is found to be just under or above 50 years. This is many years older than the average among non-miners, thus emphasising the occupation factor in their case.

From the numerous charts and tables embodied in the report the great mortality amongst Bendigo miners is seen, and this is due to respiratory diseases, notably tuberculosis. Many of the affected men are young or in the prime of life and vigour. The number of fatal mining accidents is rapidly diminishing, indicating the improvements that are being made in the safety appliances and machinery. The increasing mortality from disease makes it clear that the same care is not being taken of the miners' health. Not only is the mining class affected, but from them infection spreads to the whole community.

Symptoms.—The clinical facts are gathered from examination of 192 cases embracing all stages of the disease. The symptoms in all cases pointed to disease of the respiratory organs. The disease is most insidious in its onset, and, as a rule, only after years of work do definite symptoms present themselves. By this time, however, damage to the lungs has taken place and the condition is irremediable. The early symptoms are frequently recurring coughs and mild attacks of bronchitis, in which the ciliated epithelium of the bronchial tubes is destroyed and thereby greater facilities are afforded for the absorption of the dust particles. The general health is good and does not interfere with the men's capacity for work. This condition may last for years, and the only symptoms are those of a frequently recurring or of a continuous bronchitis. Sooner or later, however, the miner notices he becomes more readily short of breath. The dyspnoea increases *pari passu* with the amount of damage done to the lungs, till finally the man is compelled to cease working.

Such is the history of a case of pure fibrosis. The general health may be in every way satisfactory, digestion good, sleep sound, and there is freedom from pain. A few of these cases with enforced rest on the surface become the very picture of health, but are unfit for any occupation necessitating the slightest exertion. These give a high percentage of hæmoglobin with increase in the number of red corpuscles. Others again become subject to asthmatical and continued bronchitic attacks, and rapidly become fit for infection by the ubiquitous tubercle bacillus.

Associated with the frequently recurring bronchitic attacks the men complain of fitting pleuritic pains, "stitches in the side" as they term them. Rarely was a case moderately advanced examined without finding evidence of old or present pleurisy, as a rule of the dry chronic type. Notably was this the case in the region of the fifth and sixth ribs in the axillary regions. Here also where the parietal pleura is nearest the root of the lung and where the interlobar septum comes to the surface the early pleuritic rubs are heard.

On inspection diminished chest expansion was evident. Mensuration showed the average expansion in 30 cases to be 1½ inches. Frequently an inspiratory drawing in of the intercostal spaces was noted, especially towards the bases. Percussion showed scattered areas of impaired resonance due partly to thickening of the pleura with adhesions, and partly to fibroid lung changes. Auscultation gave the usual evidences of

bronchitis, emphysema and fibroid lungs, and prior to the full development of these conditions much alteration in the respiratory murmurs was noted, as diminution, prolongation of expiration, raised pitch and different grades of bronchial breathing. Creaking sounds and cardio-respiratory murmurs were common.

On examination with the fluorescent screen abnormal shadows were present with dark lines in the situation of the interlobar septa stretching out from the roots, indicating interlobar pleurisy with adhesions. Interspersed between the dark areas are light areas suggesting emphysematous changes. The length of time elapsing before symptoms manifest themselves in a miner depends upon the number of dusty places in which he has worked. In the case of 85 men the number of years of constant work in the mines before being compelled to give up work on account of ill-health averaged 22. Sooner or later, very soon in some cases, there comes progressive loss of weight and weakness. The miner notices that he perspires more easily at work below and also on exertion. Drenching night sweats are common. The temperature will show a slight rise above normal at some time in the 24 hours. The temperature when taken at regular intervals for a few days with the patient confined to bed gives assistance in arriving at the correct diagnosis hardly second to the results of a tuberculin reaction. On microscopic examination, if not the first time, with repeated search a sample of sputum will be found to contain tubercle bacilli.

To the physical signs already given, additional ones may now be found—those of consolidated and breaking down lung. The physical signs in some cases, however, were those only of a simple fibrosis, yet examination of their sputum showed bacilli abundant. This emphasises the necessity for examination of the sputum in every case.

The symptoms present some slight variations from ordinary phthisis. Hæmoptysis is rare. This is due to the dust irritation setting up a peribronchitis and a periarteritis at the same time with the slow production of much fibrous tissue. The dyspnoea is, as would be expected, quite out of all proportion to the tuberculous involvement of the lung. Pneumothorax seems to be extremely uncommon. In many of the chests examined at autopsy it would be an impossible condition, as the pleural cavities were totally obliterated by adhesions.

Incidence of Tuberculosis.—As indicated in the clinical notes, all cases are not tuberculous. It is extremely difficult to fix the onset of this infection. In arriving at the proportion of cases that are tuberculous, sputum examinations were made repeatedly before a negative result was decided on. In addition, the diagnostic use of Koch's old tuberculin was availed of in as many suspicious cases as could be persuaded to come under supervision for a few days. Inclusive of the results of autopsies, out of 204 cases positive evidence of tuberculosis was obtained in 95, that is, 47 per cent. Though it is only justifiable to consider a case tuberculous if it is positively proved such, yet the clinical history and physical signs in several other cases left little doubt in my mind that they had been infected, but at the present time the disease was quiescent. Undoubtedly 47 per cent. is a low estimate.

Out of the difficulty to determine accurately the prevalence of tuberculosis, several questions arise. Is there a type of case starting in the usual way and progressing as a pure fibrosis with recurring attacks of bronchitis and pleurisy, which, going on and on finally ends about heart failure and death without any peraded bacterial infection? And, what is the use of death in the lung diseases to which the miners

In reply to the second, it can safely be concluded that at the present time all Bendigo miners dying of their respiratory diseases die of tuberculosis. This statement is based on the final ending in 27 almost consecutive cases, the only exception being that of a man who died of acute pneumonia, and who showed no signs of tuberculosis in his lungs. This series of cases also furnishes the answer to the former question. In reply to which I can only state, though it is conceivable that such an ending may happen, nevertheless I did not see any case to support a non-tuberculous cause of death. Tuberculosis is so prevalent that such susceptible cases become infected before the fibrosis and bronchitis reach so advanced a stage as to produce heart failure of themselves.

Pathology.—The pathology is based on the evidence obtained from 19 post-mortem examinations, and the results of various histological specimens. This series exemplifies well the stages in the disease. The lungs from two miners of the class commonly regarded as healthy, but who were accidentally killed, show the early changes. Several others, dying of diseases other than pulmonary, furnish far advanced fibrotic and early tuberculous lungs. Finally are given descriptions of the lungs from miners who succumbed to their lung diseases.

Microscopic examination in the early cases shows the desquamation of the ciliated lining epithelium of the bronchi with the signs of a chronic catarrh. This destruction of the protecting cell layer facilitates the penetration of the lung tissue by the dust-laden phagocytes, and even by the angular dust particles themselves, which are found in innumerable numbers embedded in the lung tissue. Primarily the dust is carried to the peribronchial lymphatics, and shortly the glands at the root of the lung become pigmented and marbled black, and finally jet black. The dust particles are seen to be on the whole in elongate, well-bounded areas, which are the lymphatic vessels blocked by their presence. In all the alveoli, as well as in the bronchioles and larger tubes, signs of catarrhal inflammation abound in the proliferation and shedding of the epithelium and the presence of phagocytic cells free in the alveoli and closely packed with dust particles. In the lymphatics many of these particles are dropped, perhaps as the result of the death and disintegration of the phagocytic cells. Being deposited in the tissues, the jagged edges set up a low chronic inflammation with the production of formative cells and fibrous tissue which envelopes the irritating particles. However, with this there is no fresh production of new blood vessels, while the already existing ones in many places become occluded. Thus the newly formed tissue interferes with the respiratory processes, and being of low vitality has small germicidal power.

A lesser division of the lymph drainage goes from the superficial parts of the lung to the root by way of the subpleural spaces. As a consequence of this, the dust being deposited in the same way brings about a general opaqueness of the visceral pleura. The dust pigmentation on section of the lung in the early stages is in small areas, but later on the discoloration becomes more and more uniform and darker, with the most intense changes in the bronchial glands and beneath the pleura, till finally the lung becomes jet black.

With the violent expulsive efforts to get rid of the mucus from the air passages, increased air pressure on the alveoli is a constant occurrence. Dilatation of the air cells results, becoming of coarser grade as time goes on. The whole result of the fibrosis is a tough, fleshy lung, inky black in colour and of normal or somewhat contracted size. Coarse emphysema is scattered almost

large blebs at the margins. The substance is slightly gritty to cut, and on pressure a blackish fluid exudes. The condition is more than a widespread bilateral peribronchitis, for the whole substance of the lung is increased, but especially so in the neighbourhood of the bronchial tubes, and the condition may be regarded as a chronic slow pneumonia. The lung has undergone a process of carnification.

An analysis to determine the inorganic constituents of a Bendigo miner's lungs was carried out by Mr. Gustav Ampt. The results were compared with Hammarston's analysis of a normal lung. The important difference was in the silica. Normally present to the extent of 13.4 per cent., the miner's lung contained 40.5 per cent., or three times the former amount.

In a great number of cases, *pari passu* with the development of the lung fibrosis, a slow inflammation of the pleuræ has been progressing, spreading out from the root along the interlobar fissure. The adhesions are scattered at first, but they become continuous, and first the interlobar septa, and ultimately the whole pleural cavity, is obliterated, and the lungs become totally fixed to the chest wall. The thickening of the pleuræ and the adhesions, though diminishing the lung expansion, are protective against the development of pneumothorax.

In some cases the pleurisy is secondary to lung involvement, but then the site is frequently apical, and there are signs of consolidated or breaking down lung, with probably tubercle bacilli in the sputum. In many cases the first physical signs, however, are slight creaking heard at the sides in the region of the 5th interspace. The pleurisy in these cases is secondary to bronchial gland involvement, and, again, may be of tuberculous origin. Many other cases not suggestive of tuberculous infection presented signs of pleurisy. Other pleurisy are acute and of infective origin. These are rare as compared with the frequency of the chronic dry type.

As the net result of these changes, there is diminished elasticity of the lung, with impairment of chest expansion. This is still further diminished by the dense pleural adhesions which produce as well, in some cases, immobility of the diaphragm. Added to these are emphysematous changes in the lungs, and an associated bronchitis. All increase the liability to tuberculosis, and the damaged tissue, when once infected, has but little chance of again gaining the upper hand, and a fatal result sooner or later ensues.

The site of the infective process is, as in ordinary phthisis, usually apical. The infection in most cases is chronic and necrotic processes slow. The tuberculous nodules infiltrating the pigmented tissue are likewise pigmented, and the "black spit," that persists even after the miner has ceased work underground, is due to the presence of this softened lung tissue in the expectoration. Sooner or later softening occurs and cavities form. The walls, however, are extremely thick and fibrous, and the necrotic process is somewhat slow, whilst the bridges coursing across the cavities are thick and resist softening for a long while. Hence the comparative rarity of ulceration into the vessels, and hæmorrhage.

Any and all pathological lung changes may obtain in the miner's lung, but the common changes are dust pigmentation and fibrosis primary, with emphysematous changes, and at some time or other infection with the tubercle bacillus occurs, and the pathological changes peculiar to the inroads of that organism are altered somewhat, as the tissue affected is not normal but a fibroid lung.

Etiology.—The excessive mortality amongst the

once suggests vitiation of the air as the probable cause. The important difference in the air of quartz mines as contrasted with that of alluvial mines is the presence of rock dust. The carbonic acid gas is in excess in the alluvial mines, and yet there is no lung disease peculiar to or especially prevalent amongst the workers in these mines. Common, moreover, to both kinds and to all other mines is the absence of sunlight. The cause or causes, however, should be looked for in conditions that occur in one group and not in the other, and, again, the same or a similar one must coexist under other conditions to produce a similar disease of the lungs in classes of men engaged at other occupations. Thus, notwithstanding the presence of sunlight with stonemasons, filegrinders and the like, the dust inhaled at such occupations produces a fibrosis of the lungs similar to that common in quartz miners, whilst alluvial miners who are free from dust inhalation are not liable. Coalminers inhale a dust of a different nature, which does not possess the irritating character of the silica particles. Silica dust is, therefore, to be considered the cause of non-tuberculous miners' phthisis. It is constantly found in their lung tissue, enveloped by fresh fibrous tissue, formed in consequence of its presence. It can safely be asserted that, with the absolute prevention of dust, the lung disease would almost cease to exist. The other sources of air vitiation, as noxious fumes, are adjuvant causes, but of themselves do not produce sufficient detriment to health to bring about lung disease.

Miners' phthisis (non-tuberculous) is thus a typical example of a disease brought about by the mechanical action only of dust particles. It is a disease of purely local origin, and continues as such till tuberculosis with its specific bacillus is superadded. This other important etiological factor in the disease—the infection by the tubercle bacillus—obtains to the extent of 47 per cent. at least in the cases, while it is the cause of death in all cases dying of their lung disease, saving the small proportion that are carried off by acute pneumonia, which is but slightly in excess of the percentage of fatal cases of pneumonia amongst adult males.

An examination of the opsonic indices in a few cases showed that miners as a class in no respect differ from healthy male adults in their normal resisting power to infection.

When does the tuberculous infection take place? The possibilities of infection underground from miner to miner are great so long as infected miners are permitted to go below. The indiscriminate spitting of tuberculous miners is to be deprecated much more so away from fresh air and sunlight than even on the surface. In Bendigo there are certain houses that may be termed tubercle houses, which several families have occupied in turn, and which are said never to have been free from a case of consumption. The bacilli inhaled come directly or indirectly from some pre-existing case of consumption, and the infection occurs in their own homes or at places of public resort.

The two factors are to be looked on as the causes of miners' phthisis, but there are predisposing causes. The oppressive heat and moisture of the mine air do not appear to be highly injurious, as stokers and dwellers in tropical climates are subject to similar conditions. The sudden change of temperature on ceasing work and coming to the surface is attended with greater risk. These repeated chills, though minor factors, yet tend to aggravate any existing respiratory disease and to render the way more easy for bacterial invasion to occur.

The gaseous vitiation of the mine air frequently acts

The discomfort of working in the badly ventilated mines has a depressing influence causing among miners an abnormal craving for stimulo-sedatives. The results of observation again and again prove the tubercle bacillus to be the Nemesis of defective ventilation. It is therefore imperative that improvement be brought about in the mine ventilation at Bendigo.

A passing comment must also be made on the housing of the miners. A most noticeable deficiency is the almost entire absence of ventilators, whilst the windows are often not larger than a foot square, opening, it may be, only half-way. The drainage also, as might be expected in a city that has rapidly grown, has many faults. Far too frequently do the drains lead only into the nearest gully.

The hygienic deficiencies are of minor import as compared to the damage to the lungs underground in maintaining the high death-rate due to tuberculosis. All, however, play their part in the etiology of the disease, and indifference to sanitary and hygienic laws brings its own penalty.

Prognosis.—In the silicosis the outlook is good, provided the miner ceases work underground before great damage to the lungs takes place. With improvement in his general health, brought about by change of occupation, the symptoms become less urgent. If, however, the fibrosis is advanced the outlook is bad. Sooner or later, unless carried off by some intercurrent disease, tuberculosis is superimposed. This infection, as shown by the post-mortem results, is not necessarily fatal; but the chance of recovery with previously damaged lungs is remote. With suitable care the disease can be checked and life prolonged.

The mode of death is most commonly by gradual asthenia, with marked emaciation, and finally syncope. In a small proportion oedema of the extremities is a marked symptom, and death comes about from myocardial failure. The duration of life, as stated before, subsequent to tuberculous infection is about five years, or a little longer than the average case of consumption amongst non-miners.

Prophylactic Measures.—In the report on mine ventilation some advisable improvements were brought forward, and emphasis was put on the necessity of the more rigid enforcement of the laws relating to the suppression of dust. To supplement what was then suggested, it may be stated that there are three methods of controlling the dust nuisance—(a) at the place of origin, (b) from circulating in the mine air, (c) by filtering the air as the men inspire it. The second may be dismissed as a practical impossibility, whilst the third brings in the subject of respirators. However efficient these may be, they cause embarrassment to respiration. There is thus only left the prevention of dust at its origin. Dust is formed in most mining operations—in blasting, in shovelling, and throwing the rock and quartz down the shoots, and above all in rock-drilling. The unwillingness of the individual miner to use a water jet with the rock drill is almost beyond comprehension. The beneficial effects of water after blasting is well known, and buckets of water are frequently thrown down a winze or shaft after blasting; but it is better to use a smaller quantity of water in a more efficient way as a jet or mixed with air as a fine spray. Water under any pressure and compressed air are to be had in all mines. When discussing the conditions of mining, the unsatisfactory state of the sanitation and ventilation below and was commented upon. It is now only requisite emphasise the necessity for improvement, seeing the defects in these matters play no small part

in predisposing the miners to tuberculosis. The problem of dealing with the tuberculous infection to a large extent depends upon diminishing the sources of possible infection—viz., preventing the spread of bacilli-laden materials from infected individuals. The total destruction of infected sputum is thus of paramount importance. The only certain way is by burning. To ensure due regard to the laws governing the prevention of infection there is urgent need for skilled attention and constant supervision. At the present time there is only one institution in Victoria with wards specially set apart for the reception and care of advanced cases of consumption. This is the Austin Hospital at Heidelberg. Other similar institutions should be established throughout the State. In no place is such a need more urgent than in Bendigo. Compulsory notification in itself is insufficient. As a corollary to notification consumptive homes should be provided for patients. While prevention of the spread of infection would thus be secured, the advanced consumptive himself would be benefited and his life prolonged. So much is this so that in a small proportion of these advanced cases the disease becomes quiescent and for practical purposes cured. Certainly all early cases should be given the chance of recovery at a sanatorium. Provision should be made for miners and non-miners alike, as the prevalence in either class is a source of danger to the other. Another proposal that was put forward was the appointment of a medical inspector of mines. In addition to performing the duties requiring such an officer and set out in the preliminary report, he might attend to other matters necessary to deal adequately with the already existing disease. There is thus more than work enough in the mining district for a first-class Government medical officer giving the whole of his time. The working of this important centre from the metropolis is injudicious. The financial gain by prolonging life would amply repay the expenditure. Dr. Norris' scheme for the appointment of district health officers receives ample justification from the needs of Bendigo, while the high mortality from tuberculosis amongst the miners makes it clear that it is necessary not only to improve the working conditions underground, but also by efficient measures to combat the inroads of the tubercle bacillus among the residents of the district.

Summary and Recommendations.—The excessive mortality prevailing amongst the Bendigo miners has been discussed. It is evidently owing to respiratory diseases, notably tuberculosis. Many of the men affected are young and in the prime of life. The number of fatal mining accidents is steadily diminishing, and this plainly indicates that more carefulness is being exercised to guard the life of the miner in the use of explosives and by the aid of safety appliances. The increasing mortality from disease clearly shows that the same concern is not manifested in the maintenance of the miners' health. Not only does this matter affect the mining class, but the miners become sources of infection to the rest of the community. Miners' phthisis is a typical example of a disease of the lungs brought about by the mechanical action merely by dust particles without absorption of them and with no poisoning of the system. It belongs to the group of diseases all similar in character embraced under the term pneumoconiosis; it is in fact a silicosis. From the nature of the lung changes the disease tends to progress and is never recovered from; though, with moderate fibrosis only, great improvement in the general health may render less obvious the dyspnoea due to the local disease. At first the disease is purely

local in the lungs and remains so till tuberculosis with its specific bacillus is superimposed and poisons the entire body with its toxins, in addition producing alteration in the nature of the pathological change in the lungs. From the pathology it is seen that any or all morbid lung conditions may occur; hence the symptomatology is various. But all the symptoms point to lung disease, the characteristics being the extreme dyspnoea, and that even after subsequent life on the surface the sputum may still be bluish tinged owing to its containing broken-down pigmented lung tissue, and on examination under the microscope the angular jagged particles of dust may be detected in exactly the same condition as when they were inhaled, possibly a score of years previously. The popular idea is to class all lung diseases affecting the miners under the same heading, and it is not sufficiently appreciated that a man may have a chronic bronchitis with some slight impairment of his general health, with also dyspnoea on exertion, and yet there is no resulting danger to life. With change of occupation the catarrhal symptoms lessen, and though the dyspnoea persists, still with the improvement in the general health it passes almost unnoticed, and, unless it be extreme, does not hinder the carrying on of another occupation in which good health and a fair proportion of bodily energy is indispensable. In addition, there is the other class, 47 per cent. of the living affected miners, with similar symptoms at the onset, but their sputum contains tubercle organisms. The soluble poisons produced increase the constitutional symptoms, and the case progressively tends towards a fatal termination within a few years. The average duration of life after tuberculous infection is about five years, which is a somewhat longer period than is the case amongst non-miners. Though only 47 per cent. of the cases are infected, all miners dying of lung complaint die of tuberculosis. Of the causes predisposing to the bacillary infection, the irritation of and consequent changes in the lungs are the main ones. Minor factors, however, are the noxious fumes and defective ventilation in the mines and unhygienic conditions on the surface. The prevalence of tuberculosis is due to the careless and imperfect destruction of infected expectoration. From this brief but comprehensive summary of the nature and cause of the so-called "Miners' complaint," it is evident that though many amendments are possible, even necessary, in the existing laws, and also improvements in the management of the mines, miners have the safeguarding of their own health to a considerable extent under their own control. A miner's foremost consideration should be the care of his own health. In addition to the recommendations already furnished in the preliminary report, all of which receive ample support from the nature and causes of miners' phthisis, others to cope with the already existing disease are given:—1. Penalising carelessness in the destruction of tuberculous sputum and indiscriminate expectoration whenever the patient is aware of the infective nature of his complaint. 2. Establishing (a) a home for advanced tuberculous patients, (b) a sanatorium for the treatment of early cases of the same disease; both these should be established in the vicinity of Bendigo. 3. Making provision for invalid miners. With this object the Government should reorganise and take complete control of all funds available for the relief of disabled miners, subsidising the funds so that all reasonable demands upon them may be met. 4. Medical supervision of all miners affected with lung complaint in their homes.

The report closes with an expression of thanks to the trustees of the estate of the late Edward Wilson, who by instituting the inquiry and meeting all the necessary expenditure have placed the whole mining community under a deep debt of gratitude.

New South Wales State Children Relief Board.—At the monthly meeting of the State Children Relief Board the statistical returns for the month showed that 3970 children are now under the board's control, of whom 146 are permanently adopted without payment, 2127 are boarded out at rates varying from 5s to 10s a week, and 1262 are apprenticed to various occupations, and are in receipt of wages which are held in trust for them by the department until the completion of their indentures. The board is charged with the duty of inspecting the institutions established or maintained for the reception of children under seven years of age, apart from their parents. During the month St. Joseph's Orphanage at Goulburn has been inspected, and the issue of a license for the new premises at Kenmore recommended. Authority was given for the restoration of 12 children to the care of relatives, whose circumstances had so improved as to enable them to support the children. Two applications were refused.

Railway and Tramway Hospital Fund.—The 18th annual meeting of the Railway and Tramway Employees' Hospital Fund was held at the Railway Institute last month, and was largely attended. The president, in moving the adoption of the report and balance-sheet, referred to the rapid progress of the fund. At its initiation in 1890 only three hospitals would agree to receive patients on the terms of 15s per week from the fund for each patient sent in, with an equal distribution of the balance of the year's contributions amongst the hospitals at which patients had been treated. At that time the hospitals wanted the patients to contribute to their maintenance as well as the fund, but the promoters objected. Now they had hospitals in all the important railway centres willing to accept the terms of the fund. This state of matters, however, was not accomplished without self-sacrifice on the part of the collectors to the fund. Many who started to help the fund at the initiation in 1890 were still contributors. The report and balance-sheet were adopted. A vote of £10 was passed as a donation to the Civil Ambulance Brigade.

Large Medical Fees.—Nearly a century ago Sir Astley Cooper received £5000 for a trip to Vienna to attend upon Prince Esterhazy, and for a journey to St. Petersburg, to vaccinate the Empress Catharine II. Dr. Dimsdale received £10,000, an annuity of £500, and a Russian Barony. For attending the Nawab of Rampur during an attack of rheumatism an English army surgeon was rewarded by a £10,000 fee; the Czar of Russia once paid £15,000 to Professor Zacharine, of Moscow, for two days' attendance; Dr. Keyes, an American physician, received £12,000 for a pleasant trip on the yacht Valiant as medical attendant to one of the Vanderbilts; and Dr. James Gale, the blind medical electrician, received £50,000 (the largest medical fee on record) for a few weeks' successful treatment of a millionaire's leg.

Amongst the donations recently received by the Melbourne Hospital were one of £10 from Lord Northcote, and one of £20 from the shire council of Poowong and Jeetho.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The League of Mercy—Behring's Tulaselaktin—A Windfall for the Hospital Sunday Fund—The Habitual Drunkard—The Royal College of Surgeons—The Reduction of Infant Mortality—University College Hospital.

THE seventh annual meeting of presidents of the League of Mercy was held at St. Mary's Hospital on December 12th, under the presidency of Mr. F. Green. A letter was read from the Prince of Wales, grand president, in which His Royal Highness expressed satisfaction at the progress of the league. The letter further said: "His Royal Highness is glad to learn that the league will in all probability be able to hand over about the sum of £18,700 to the King's Hospital Fund. This is the largest amount which has yet been contributed, and it is most gratifying to His Royal Highness to know that the work done by the members of the league has served to render such valuable aid not only to the London hospitals, but also to the various local hospitals in the home counties." Lord Farquhar was unanimously elected chairman in succession to the late Earl of Mansfield. The hon. treasurer, Sir Henry Burdett, stated that the league's districts now numbered upwards of a hundred. Sixty-eight returns had, so far, been sent in, and the collections showed an increase of £773 on those of the preceding year.

The correspondent of the *Daily Mail* has received from the editor of the *Tageblatt* a transcript of the most important portion of Professor Behring's address on his new method of treatment for tuberculosis, delivered on December 11th at Stuttgart. The Professor is reported to have stated that this latest remedy, which he has named "Tulaselaktin," is derived from a combination of the virus of tuberculosis and chloral hydrate, and that in regard to it he has arrived at the following conclusions:—"First, it is still doubtful whether that phase of tuberculosis known as consumption of the lungs can be favourably influenced by my remedy. Second, one can, through intravenous, subcutaneous and stomacheal introductions of tulaselaktin, not only immunise tuberculous cows, pigs and sheep against tubercular infection, but also rabbits and guinea-pigs, with injections of three-tenths of a milligramme of my remedy as a first dose. The quantity is gradually increased during a period of a fortnight. Third, the maximum period of immunisation is not attained before five to twelve weeks after the completion of the immunisation treatment. Fourth, immunisation with the tulaselaktin treatment is to be judged exactly as that immunisation method which I formerly described as mithridatisation. Fifth, the progress of the immunisation process is regulated by the quantitative estimation of tubercular protective bodies in the blood serum with mithridatised individuals. Sixth, tuberculous protective bodies discovered by me go out of the blood into milk, and it is thereby possible to immunise a suckling child either with the milk of its own mother or that of animals, provided both animals and mother have been treated by my immunisation process. Seventh, it will be necessary through further animal experiments to determine if for practical purposes the protection of nurslings against tuberculosis can be done through the immunisation of milk or through the mithridatisation treatment. That, however, has resulted in longer influence of immunity. Eighth, those animals which by injection of tuberculin for diagnostic purposes

show themselves especially susceptible to this treatment, and thereby give positive proof that they are infected, can with good success be subjected to mithridatisation if they are well nourished, and if a clinical examination reveals no manifest tubercular affection. I therefore expect that those human beings who react to tuberculin, if not phthisical, can be healed and immunised. Ninth, the question as to whether tubercular individuals can be freed of tuberculosis by the mithridatisation treatment can only be answered with any certainty upon the basis of comprehensive therapeutic statistics. Tenth, well nourished cows which exhibit no signs of tuberculosis, except that of the appearance of tubercular bacilli in the milk, rabbits with artificially-produced tuberculosis of the eye, pigs with glandular tuberculosis, and guinea-pigs with chronic progressive lung tuberculosis, have been treated with success by my curative tulaselaktin remedy. From these therapeutic experiments I am justified in recommending the tulaselaktin cure in similar cases of human tuberculosis. The net result of these observations is, we may anticipate, that tulaselaktin is destined to play a useful and practically important rôle in the curative treatment of scrofulosis, especially, however, in the combating of consumption, through the immunisation of nurslings."

A meeting of the Metropolitan Hospital Sunday Fund was held at the Mansion House on November 30th, under the presidency of the Lord Mayor. Mr. Sydney Holland, one of the executors of the will of the late Mr. George Herring, said that after certain legacies had been paid, the Hospital Sunday Fund would benefit to the extent of £600,000 from the estate. Lord Stamford moved a resolution of condolence with the relatives, and this was seconded by Sir William Church. The council further resolved to place in the Mansion House a marble bust of Mr. Herring, with a copy of the letter sent to the executors by the King. The council decided to recommend that June 9th be fixed for the next annual collection.

The report of the Inspector under the Inebriates Acts, 1879 to 1900, for the year 1904 was issued on November 23rd as a Parliamentary Blue Book. Dr. Braithwaite devotes the major part of his report to the question of habitual drunkards and their treatment, and gives expression to the following chief conclusions arrived at as a result of upwards of seven years' experience:—" (1) That the majority of persons who have been sent to reformatories are suffering from obvious and sometimes extreme mental defect; (2) that the defect in question is mainly due to congenital weakness which, possibly only just evident at the start of life, has been intensified by various influences, and supplemented by degenerative changes, until it has become permanently unimprovable; (3) that the increase of original defect, and the addition of brain degeneration, are due to long-continued drunkenness, practically unrestrained, and to the oft-repeated abrupt stoppage of liquor resulting from innumerable arrests and imprisonments; (4) that the committal of habitual drunkards to prison has proved useless in that it has failed to cure, deter or afford protection to the community, and inhumane because it leads to moral degradation, causes or increases mental defect, and removes all hope of reformation; (5) that the only chance of reformation for habitual drunkards depends upon their early committal to special medical treatment and avoidance of the prison routine to which all cases have been subjected hitherto; (6) that chronic drunken recidivists who have become mentally defective, irreformable and hopeless, should be committed to reformatories for full terms, and recommitted thereto

as often as necessary, so that detention may be continuous, or as near continuous as the law permits, continuous detention being justifiable on account of helpless condition, danger to the community, and the constant charge such persons are upon public funds." The report further declares that while the criminal drunkard and the person who wants to cure himself are both provided for, it is essential that some means should be found of reaching the large section of the inebriate population which does not come under either of these categories.

The twenty-second annual meeting of Fellows and members of the Royal College of Surgeons took place on November 15th, Mr. Henry Morris, president, being in the chair. Mr. Joseph Smith moved a resolution, which was seconded by Sir Charles Hutchinson, and carried unanimously, reaffirming the desirability of admitting members to direct representation on the council, "which, as now constituted, does not represent the whole corporation." Dr. W. G. Dickinson's resolution—"That this meeting recommends that when the question of admitting women to the College examinations is brought before the Fellows and members, this should be done by means of a poll of the Fellows and members"—was also carried. The following resolution, moved by Mr. George Brown, was carried by a large majority:—"That this meeting strongly urges the council to use all its influence to secure the raising of the standard of the preliminary examinations in general education and in science, and this meeting is further of opinion that the time has arrived when chemistry, physics and biology should be treated as matters of preliminary education, and an examination passed in them before the commencement of medical studies." A cordial vote of thanks to the chairman for presiding, coupled with congratulations to the ex-president—Sir John Tweedy—on receiving the recent honour of knighthood, ended the meeting.

When Alderman Broadbent took office as Mayor of Huddersfield two years ago, he startled the municipal world by a novel scheme to reduce the rate of infant mortality. He selected the district of Longwood for the purpose of his experiment, and to parents living there he offered £1 for every child born during his mayoralty that was reared to the age of 12 months. The result of the two years' experiment was made known on November 8th. The first baby to receive the promised birthday gift was born on November 10th, 1904, the day after the Mayor had assumed office, and the last received the gift on Thursday, November 8th, 1906. The Huddersfield rate of infant mortality has averaged 139 per 1000 for 10 years, and in the district of Longwood the average has been, for the same period, 122. During the two years there were serious epidemics of whooping-cough and measles to contend against, and the last summer was one of the most deadly on record. Altogether 112 babies received the promissory note card. Of that number 107 actually received the gift offered. Out of the 112, four died, and one was removed from the district. If the four registered deaths only were counted, the figure was 35. If the missing baby were reckoned as dead the figure was 44. If, also, the deaths of two other children who were born before his scheme was commenced, but had died during the period of experiment, were allowed for, the figure came out at 53, and that was the least favourable figure to compare with the previous averages of 122 in the district experimented upon, and 139 for the whole town. It will thus be seen that the infant death rate for the experiment was well under half the previous average death rate. The Mayor's own estimate of

the success of the experiment was that it was astounding, and provided an example which, if followed, would result in the saving of tens of thousands of infant lives.

The official opening of the new buildings at University College Hospital was performed on November 6th by the Duke of Connaught. The Duke, who was accompanied by the Duchess of Connaught, was received by the Duke of Bedford, president of the hospital, and Lord Reay, president of University College. A large and distinguished company had assembled to meet their Royal Highnesses. On reaching the platform, the Duke of Bedford presented an address from the hospital committee and the medical staff to the Duke of Connaught, and Lord Reay, on behalf of the Council of University College, addressed His Royal Highness, and outlined the excellent work which had been done by the Medical School. The Duke of Connaught, in acknowledging the addresses, said it gave the Duchess and himself intense satisfaction to be present on that occasion. He learned that 65,000 in and out-patients were treated by that hospital every year. The hospitals of London were many, and they were splendid institutions, generously supported by the public. The demand, however, was even now greater than the supply, and they must all feel extremely grateful to the late Sir John Blundell Maple for his noble generosity in providing the new buildings of that hospital. His Royal Highness referred to the distinguished medical men and surgeons who had filled the professorial chairs in that hospital in the past, and expressed the hope that their successors of to-day would follow in the steps of those who had gone before them and had done so much for the alleviation of human suffering. The Bishop of London then offered prayer, and the Duke of Connaught declared the buildings open. In doing so, His Royal Highness wished the institution every success, and expressed the hope that the new nurses' home, now in course of erection, would soon be completed. When that had been accomplished, University College Hospital would be one of the best equipped and most complete institutions of its kind in London.

Victoria.

(FROM OUR OWN CORRESPONDENT.)

Proposed New Melbourne Hospital Site—Typhoid Fever in Kew Asylum—Health Matters—Obituary.

FOR some months the medical profession in Melbourne has been divided upon the question of the removal of the Melbourne Hospital to a new site on Sydney-road, on land adjacent to the University, and now occupied by a pig market. A scheme has been evolved by which an exchange of sites is to be effected, the City Council handing over the pig market site and taking the present site in exchange. The idea is to rebuild the Melbourne Town Hall on the present hospital site and to sell the old Town Hall site, or build shops on it. It is claimed that by this means there will be a financial gain all round. It is not necessary here to go into the financial details. Our interest is more with the professional considerations. These have been thrashed out by correspondents in the daily press until one begins to doubt the truth of the saying that in the multitude of councillors is much wisdom. The majority of the staff of the Melbourne Hospital favour the new site as giving opportunity of building an up-to-date hospital, with especially better out-patient accommodation and provision for special departments. This at once brought forth correspondence from members of the

staffs of the special hospitals, especially of the Eye and Ear Hospital and Women's Hospital. Various schemes were brought forward to avoid overlapping, among them being a suggestion that all the hospitals be under one management, the special hospitals thus becoming all departments of the Melbourne Hospital. The reply was that a general hospital worthy of the name must provide for special departments of all kinds under one roof. This is especially a necessity in the case of a teaching hospital. To the students the removal of the hospital to the pig market site would be an immense advantage.

There has been an outbreak of typhoid fever in the Asylum for the Insane at Kew. Up to March 6th 10 cases had been reported. The health officer of Kew, Dr. Inglis, visited the asylum, and, while courteously shown round the wing where the cases had originated, was informed that he had no jurisdiction. Dr. Inglis' report and that of the sanitary inspector to the local Council have been forwarded to the Board of Health and to the Government, as a consequence of which the Chief Secretary, Sir A. E. Peacock, has ordered a report to be drawn up and submitted to him. The cause is evidently a want of adequate drainage, as the outbreak has so far been confined to one wing of the institution, whereas the milk and water supplies are common to the whole asylum.

Health matters are undoubtedly to the fore at present. Some time ago the Board of Health expressed the opinion that whole-time medical officers of health should be appointed. This has received support in many quarters, including that of Dr. Cuscaden in his retiring address as President of the Victorian Branch of the B.M.A. This proposal has roused a storm of protest from the municipalities; no fewer than 111, it is said, have refused to support it. On March 6th a meeting of health officers was held in the Town Hall, Melbourne, when it was resolved to re-establish the Medical Officers of Health Association of Victoria. Dr. Jamieson, health officer of the city of Melbourne, was elected president.

The death of Dr. J. T. Rudall has removed one of the oldest and most widely-respected members of the profession in Melbourne. He was a man whose ideals were of the highest order and whose conduct fitted his ideals.

Accident is responsible for another death in the medical profession in Victoria. On the night of March 5th, Dr. Lionel S. Wells, L.R.C.P. and S. (Edin.), of Eaglehawk, was thrown out of his buggy and sustained a fracture of the skull. He lingered until March 8th, when he died. He was only 44 years of age, and leaves a widow and two children.

FEEES FOR ATTENDANCE ON POLICE CASES.

(To the Editor of The Australasian Medical Gazette.)

Sir,—My experience in the following case may possibly be of use to fellow medics should a similar condition present itself to one of them. One busy afternoon in January of last year, the senior constable in charge of the Nhill police station came in a hurry, saying that he had received a 'phone from the Viata railway stationmaster for a doctor to be sent at once ten miles out, a railway passenger having jumped out of a moving train and received injuries. I had a team yoked up, and drove out with a junior constable to the scene of the trouble. The man was quite sane and manageable, and had received a good shake up; frac-

ture of humerus and, I think, some injury to a knee. Anyway, it took an hour to apply splints and see him comfortably fixed in a neighbouring farmer's buggy. The policeman and I kept behind the patient all the way back, some four hours of my precious time being consumed, mostly in a brazen hot sunshine, with sand or black dust at foot. In due course I sent in to the Police Department the modest fee of £5 5s only for the trip. They point blank refused any indebtedness. Next, I wrote to the Defence Association, whose secretary, Dr. McKeddy, promptly suggested trying the Crown Law Department; but they were equally "oyster." Further writing to the Police Department elicited the fact that the unfortunate senior constable was responsible for the expense! also that the police were collecting money from the man (he having recovered meanwhile) in instalments for the debts incurred. The end of it all was, yours truly received 30s; but he has learned a lesson he will know how to apply next time.

T. SHANASY, M.D. (Brux.), L.R.C.S. (Ed.)
Nhill, Victoria.

ATOXYL IN SLEEPING SICKNESS.

(To the Editor of the Australasian Medical Gazette.)

Sir,—Your London correspondent, writing in last month's *Gazette*, refers to what he calls a discovery by Professor Koch of a method "for combating the ravages of the trypanosomes by means of a serum called atoxyl." Will you allow me to point out that atoxyl is not a serum, but a drug; in fact, it is a definite chemical compound (meta-arsenic-anilid or $\text{C}_6\text{H}_5\text{NHAsO}_2$). It has been used in various skin affections and in anæmia (*vide British Medical Journal*, 1907, page 132).—I am, etc.,

C. REISSMANN, M.D. (Camb.).

Adelaide.

[Dr. S. J. Richards, of Mount Morgan, Q., has also written to the same effect.—ED. A.M.G.]

THE BATTLE OF THE CLUBS.

Coolgardie, W.A.

At a smoke social by the Menzies Lodge No. 22, I.O.O.F., in Coolgardie, W.A., last month, Dr. Leger Erson, medical officer to the local Friendly Societies, remarked that while in populous centres, such as Brisbane, friendly societies have amalgamated and accumulated funds by sweating struggling members of an overcrowded profession, the I.O.O.F. have come nobly forward with proposals to adjust the remuneration of their medical officers on a basis at once fair to the doctor and within the means of the society to bestow, whereby each visit or service rendered is recorded and paid for monthly by the lodges under their jurisdiction. In this way payment was made contingent on service rendered, and the doctor was secured a fair remuneration for his labour and responsibility. Under so wise and just a system, if generally adopted by the friendly societies, the difficulties of the past would be removed, "the battle of the clubs" would cease, and medical contract practice would be raised to a level of excellence hitherto unattained. It would also secure the willing service of the whole medical profession for the friendly societies, and inculcate a spirit of self-respect, incapable of resorting to

the artifices of the "sweater" among their members. It would lastly provide a just recompense to the lodge surgeon for his labour, and raise many deserving medical men from the slough of despond in which they were placed by some grasping and heartless delegates, mean enough to avail themselves of the competition too many licensing bodies have created. Happily in Menzies they were far removed from the evils complained of, and the medical agreement for liberality and just dealing left little to be desired. Their sympathies, however, must be with these brethren in their effort to adjust upon an equitable basis the difficulties now besetting friendly societies in many places.

MEDICAL NOTES.

Brisbane Hospitals Aid Association.—A meeting of the officers of the Hospitals Aid Association was held last month to carry out the resolution carried at a special meeting of the association, instructing the officers to duly wind up the affairs of the association. The balance-sheet showed that during the past year the following amounts had been distributed to the various hospitals:—Brisbane General Hospital, special fund £3570 4s 11d, general fund £886 8s 9d; Hospital for Sick Children, £343 11s 8d; Lady Bowen Hospital, £98 6s 8d; Lady Lamington Hospital, £85 8s 7d, making a grand total of £4984 0s 7d. During its life the Hospitals Aid Association, which only existed for the purpose of giving financial relief to the hospitals, distributed to the four benefiting institutions the sum of £22,772 0s 7d. The officers expressed their regret that their work for the hospitals had now ended by the dissolution of the association.

Leprosy in Fiji.—A recent visitor from Fiji states that up till a few months ago there were about 2000 lepers living quite promiscuously in the islands, Dr. Corney having reported, on the strength of a Hyderabad commission, that leprosy was not contagious. The informant stated the disease was not transmissible except through food, but quite a number of the Fiji lepers were cooks at the hotels at Suva and elsewhere. The seriousness of the situation was impressed upon the Legislature by Dr. Fox, with the result that it was ultimately decided that the diseased inhabitants should be placed by themselves. The work of collecting the lepers commenced in November last, and is now almost, if not quite, completed, the affected inhabitants having been isolated on an island.

Food Inspection.—A lecture was delivered by Dr. Armstrong, City Health Officer, at the Sanitary Inspectors' Association rooms, Queen's Hall, Sydney, recently, on the object and methods of food inspection. Special attention was drawn to the fact that food should at the time of its preparation be wholesome as well as at the time of sale, and that foodstuffs should not be stored too long in stores. He also dwelt on part IX of the Public Health Act, and the Diseased Animal and Meat Act, as administered by sanitary inspectors of municipalities. A vote of thanks was accorded the lecturer.

The Use of Clay in Surgery.—The *Lancet*, in its issue of January 5th, 1907, has this to say of the clay poultice:—"Since the introduction of clay in the form of a poultice, into the last edition of the United States Pharmacopœia, its use in surgery has attracted considerable attention. The clay is made into a thick paste with glycerine and is rendered anti-

septic by the addition of boric acid and the oils of peppermint and wintergreen. There is no doubt that in its modern form of application clay is of considerable value in reducing inflammation and in the treatment of boils and ulcers. Hence it is of interest to refer to a book published in 1872, wherein the use of earth in surgery is recommended on account of its sedative and deodorising action and its influence over inflammation, putrefaction, and the healing processes. Nearly 200 pages of the book are filled with clinical notes on 93 cases in which earth was used as a dressing. The cases cited included contusions, cuts, lacerations, severe burns and scalds, injuries to the eye, gunshot and shell wounds, eczema, fractures, amputation, fistula, hæmorrhoids, ulcers, abscesses and carbuncles. From an extended consideration of the results of these cases the writer concluded in favour of the use of earth in surgery. Since Dr. Hewson's book was written, the Listerian system of surgery, then in its early stages, has altered many of the notions that were commonly entertained. It is probable that the clear recognition by Lord Lister and his followers of the part played by bacteria in hindering the process of healing in wounds was largely responsible for the rejection of the earth method of treatment, owing to the variable constitution of earth and its liability to contamination with various impurities and organisms. Fortunately, however, clay possesses many and perhaps all of the properties of earth without its drawbacks. It can easily be obtained, in the form of kaolin, in a state of cleanliness and sterility; it is highly absorbent, it allays inflammation, and has high capacity for heat." The leading exponent of the reduction of inflammation by the method of the antiseptic clay poultice is Antiphlogistine, which was introduced to the medical profession 15 years ago. Its use in America, Great Britain and the colonies has become so general that the majority of medical practitioners employ it in treating the various inflammatory and congestive conditions.

Wagga Wagga Hospital, N.S.W.—A deputation representing the committee of management of the Wagga Wagga Hospital recently asked for a further grant from the Government towards the building fund. It was represented that on the lowest estimate it was necessary to provide 32 beds, and the buildings to furnish this accommodation would cost at least £8000. Already the Government had given a grant of £3000, and it was estimated that £2000 would be subscribed locally, leaving a balance of £3000, which it was asked the Government should provide. The committee of management did not feel disposed to go on with the work of erecting new buildings unless they could see some further assistance for them in the near future. Mr. Hogue, the Chief Secretary, admitted that urgent need existed for hospital accommodation at Wagga, where some 800 patients were treated annually. If the committee did not commence work before June 30th next the vote of £3000 already made would lapse. He felt sure the Government would be ready to sympathetically consider any request received on behalf of the Wagga Hospital, and would be disposed to treat the committee generously. What the Government decided upon in the way of granting further assistance would depend very largely upon what the residents of Wagga did for themselves.

FOR SALE.—Doctor's SULKY, built by Angus, with hood, apron, lamps, etc., complete; recently painted and in splendid order. Apply Dr. Cosh, Ashfield.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, Medical Officer of Health, reports for the month of February, 1907:—The deaths registered in the metropolitan municipalities, exclusive of those in the Gladesville and Callan Park hospitals for the insane, numbered 376. This is the lowest mortality experienced in any month during the past five years, and corresponds to an annual mortality rate of 8·12 per 1000 living, or, when corrected by the inclusion of the metropolitan proportion of deaths in all the benevolent and lunatic asylums of New South Wales, to a rate of 8·79 per 1000. The deaths from diarrhoeal diseases numbered 56, which is the lowest record for February from these causes for the past ten years. The number given includes 4 deaths from diarrhoea, and 52 from enteritis. Infectious diseases, other than diarrhoea, were responsible for 31 deaths. Whooping cough was more fatal than it has been for a considerable time; it caused 11 deaths among children. Measles and scarlet fever each caused two deaths, diphtheria 3, and typhoid fever 4. Plague was responsible for 6 deaths, erysipelas for 1, and puerperal fever for 2. Phthisis was more fatal than usual, causing 33 deaths as compared with an average for the month of 29. The mortality from cancer was unusually low, with 18 deaths. Fewer deaths than usual (46) were recorded from diseases of the heart and blood vessels. A total of 26 deaths were attributed to respiratory diseases. Bronchitis caused 9, and pneumonia 14. Deaths of infants numbered 104, which is equal to an infantile mortality rate of 90 per 1000 births. This is an unusually low rate for February. The most important causes of infantile mortality were:—Whooping cough 6, diarrhoea 2, enteritis 39, prematurity 28, and developmental diseases 15. A diminished prevalence of all the notifiable infectious diseases, except plague, was observed. 35 attacks of scarlet fever, 32 of diphtheria, and 57 of typhoid fever were notified. Of bubonic plague no less than 14 cases occurred, which is a greater number than has been observed in any single month since May, 1902. Six of these attacks were contracted in one building, and five in another. Within the city of Sydney 16 cases of pulmonary consumption were notified under the City Council's by-laws. Seven dwellings were disinfectd after occurrence in them of deaths from consumption, and six dwellings after removal from them of living consumptives.

Supervision of Dairies.—Section 89 of the Local Government Act provides that the Governor, on the recommendation of the Board of Health, may proclaim that any shire council shall be the local authority within the meaning of the Dairies Supervision Act of 1901. Until such proclamation has been made the police continue, as heretofore, to be the local authorities under that Act outside the municipalities of the Eastern and Central divisions of this State. An application has been received by the Board of Health from the Blue Mountains Shire Council to be proclaimed a local authority accordingly. The shire council was informed that the application was considered premature for the present. Such applications can only be considered when accompanied by a statement of the localities in which dairies were situated, the means of communication between those localities, the number of dairies situated in them, and the means

possessed by the Council of effectively administering the Act. Apart from other considerations, the board considers that the shire councils have a great deal of organising work to attend to at present, and might well be glad to be relieved of the important and occasionally arduous duty of inspecting dairies.

Board of Health.—At a meeting of the Board of Health last month reports on inspection of dairy premises showed that 247 registered dairies in the Muswellbrook and Nowra municipal districts and the Dungog police district had been visited. In all 5671 milch cows were inspected, and 30 (20 at Dungog, 9 at Nowra, and 1 at Muswellbrook) had been condemned. In all but seven cases the state of the premises visited was found to be fair to good, and the local supervision was found efficient throughout. On application of the council of the municipality of Hamilton it was decided that a recommendation for payment of half the salary of a qualified sanitary inspector, to be appointed on the usual terms with approval of the board, should be made to the Chief Secretary. This kind of recommendation, which is most useful, is made by the board only in the case of populous municipalities where there is scope for the efforts of such an inspector. The population of Hamilton is now about 7000. On a petition from the residents of the town of Lockhart for appointment of a local medical officer of health, it was directed that the petitioners be informed that it is not the policy of the Government to make such appointments in country districts. Sanitary regulations were framed and passed for the sanitary areas recently proclaimed at Bangalow and at Crookwell.

The Sydney Water Supply.—Dr. Stokes, Medical Officer for the Board of Water Supply and Sewerage, reports as follows:—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, February, 1907:—

Colour	21° Brown.
Clearness	Marked.
Odour	Nil.
Suspended matter	Slight
Total solids	9·7000
Chlorine	3·250
Free ammonia	·004
Albuminoid ammonia	·024
Nitrogen as nitrites	·000
Nitrogen as nitrates	·183
Oxygen absorbed in 15 minutes	·200
Oxygen absorbed in 14 hours	·800
Permanent hardness	1·8
Total	2·9

NOTE.—Parts by weight per 100,000.

2. Bacteriological examination of samples of water as it leaves the Catchment area, and from the canal, February, 1907:—

	Average No. of Bacteria per c.c. growing at		Ratio.
	37° C.	Room tem.	
Cataract River at Broughton's Pass	147	444	1 : 3.02
*Outlet Nepean Tunnel	2022	2490	1 : 1.23
Canal at Kenny Hill	176	271	1 : 1.54

* Fresh in Rivers

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during February, 1907 :—

Final Effluents from	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification.		Incubator Test. Seven days at 57° C
			Total Solids.	Chlorine.	Free Ammonia	Albuminoid Ammonia.	Nitrogen as		Oxygen Ab- sorbed in		Albuminoid Ammonia.	Oxygen ab- sorbed in Four hours.	
							Nitrites.	Nitrates	Three Minutes.	Four Hours.			
Chatswood ..	Slight	Nil	33.0	7.0	1.045	.152	.005	1.021	.154	.577	90.3	83.0	No decomposition
Folly Point..	Faint	Nil	50.4	10.4	2.407	.122	.010	.658	.152	.648	93.4	86.5	" "
Balmoral ..	Slight	Nil	63.8	13.8	1.332	.162	.037	3.080	.193	.602	87.2	81.0	" "

Adulteration of Food.—Despite persistent prosecution, the adulteration of foods offered to the public for sale is still a phase of daily trading operations. In the suburb of Leichhardt last year there were 12 cases of milk adulteration. At Balmain recently nine persons were convicted of selling an artificially-prepared syrup as raspberry. In one case the alleged raspberry syrup contained half a grain of salicylic acid to the pint; in another case the liquid was found to contain no raspberry at all. Under the old Health Act the inspectors in the majority of cases of food adulteration were powerless to institute prosecutions, or could only do so with a certainty that a conviction would be upset upon a technical point. Now the duty of administering the law rests mainly with the local authorities, and if poisonous drugs or adulterated foodstuffs inimical to health still get into consumption the responsibility is theirs.

Rat-catching at Newcastle.—For some weeks past rat-catching operations have been vigorously carried on round the foreshores of the harbour and in buildings in the neighbourhood. Over 500 rats and a large number of mice have been caught and submitted for examination to Dr. Dick, the health officer, but in no instance was there any trace of plague. The Board of Health men have now been withdrawn, but local ratcatchers will probably be retained for some time. The City Council is now considering whether a sum of money, not exceeding £200 a year, will be spent on maintaining precautions against plague.

Victoria.

Health of the Metropolis.—At a recent meeting of the City Council the health committee recommended the appointment of an Assistant Officer of Health for the city, who should devote the whole of his time to the service of the corporation, at a minimum salary of £300 and a maximum of £400 per annum. This recommendation has been concurred in by a special inquiry committee. This matter had been before the Council in July last, but had been postponed. A serious outbreak of bubonic plague had since taken place in New South Wales, and despite all local precautions it was considered that they had no guarantee of immunity in Melbourne. The committee therefore feel it to be the duty of the Council to take such steps as would annihilate or modify the effects of the plague if ever it made its appearance in this city. The Lord

Mayor observed that the increased area of the municipality and the prevalence of the pestilence in an adjoining State demanded action on the part of the Council in keeping the plague out of Melbourne. A further discussion took place on a draft by-law submitted to the health committee, its purport being to compel the occupiers of houses within the city of Melbourne to provide boxes or other specified receptacles for the temporary deposit of house refuse. The matter was referred to the legislative committee for report to next council meeting.

Rat Extermination.—The question of rat destruction came up for discussion at a Footscray council meeting in consequence of a report of the city inspector stating that vessels moored at the local wharfs were not observing the regulations in force for preventing rats walking along the mooring ropes to the shore; and that the majority of local factories and business places were infested with the pest, despite strong endeavours to exterminate them. It was resolved—"That a bonus of 2d per head be paid for dead rats, and the Ports and Harbours Department be written to asking that the regulations as to rat shields being placed on mooring ropes be stringently enforced."

West Australia.

Unwholesome Food.—The Central Board of Health has been very active of late in connection with certain consignments of tinned salmon. This being manifestly unfit for human consumption, was condemned, taken out to sea, and destroyed, the tins first of all being broken open. One seizure amounted to 24,000 tins; but the whole of this was not finally condemned. To emphasise the extent to which food unfit for human consumption is exported to this State, it is stated that during the past three months the Central Board of Health has seized and condemned nearly 200,000 tins of salmon alone. These objectionable shipments have been arriving *via* Singapore, and now there is a strong suspicion that the canned meats and fish in question were old condemned stock, that had been held over since the South African and Philippine wars. The last three lots seized have all comprised mixed brands, and this supports the idea that the importations are old condemned army stores. Dirty dates have also been seized upon by vigilant health officials. These came by a German mailboat, and the "choice" consignment contained as much dirt as dates.

bronchitis, emphysema and fibroid lungs, and prior to the full development of these conditions much alteration in the respiratory murmurs was noted, as diminution, prolongation of expiration, raised pitch and different grades of bronchial breathing. Creaking sounds and cardio-respiratory murmurs were common.

On examination with the fluorescent screen abnormal shadows were present with dark lines in the situation of the interlobar septa stretching out from the roots, indicating interlobar pleurisy with adhesions. Interspersed between the dark areas are light areas suggesting emphysematous changes. The length of time elapsing before symptoms manifest themselves in a miner depends upon the number of dusty places in which he has worked. In the case of 85 men the number of years of constant work in the mines before being compelled to give up work on account of ill-health averaged 22. Sooner or later, very soon in some cases, there comes progressive loss of weight and weakness. The miner notices that he perspires more easily at work below and also on exertion. Drenching night sweats are common. The temperature will show a slight rise above normal at some time in the 24 hours. The temperature when taken at regular intervals for a few days with the patient confined to bed gives assistance in arriving at the correct diagnosis hardly second to the results of a tuberculin reaction. On microscopic examination, if not the first time, with repeated search a sample of sputum will be found to contain tubercle bacilli.

To the physical signs already given, additional ones may now be found—those of consolidated and breaking down lung. The physical signs in some cases, however, were those only of a simple fibrosis, yet examination of their sputum showed bacilli abundant. This emphasises the necessity for examination of the sputum in every case.

The symptoms present some slight variations from ordinary phthisis. Hæmoptysis is rare. This is due to the dust irritation setting up a peribronchitis and a periarteritis at the same time with the slow production of much fibrous tissue. The dyspnoea is, as would be expected, quite out of all proportion to the tuberculous involvement of the lung. Pneumothorax seems to be extremely uncommon. In many of the chests examined at autopsy it would be an impossible condition, as the pleural cavities were totally obliterated by adhesions.

Incidence of Tuberculosis.—As indicated in the clinical notes, all cases are not tuberculous. It is extremely difficult to fix the onset of this infection. In arriving at the proportion of cases that are tuberculous, sputum examinations were made repeatedly before a negative result was decided on. In addition, the diagnostic use of Koch's old tuberculin was availed of in as many suspicious cases as could be persuaded to come under supervision for a few days. Inclusive of the results of autopsies, out of 204 cases positive evidence of tuberculosis was obtained in 95, that is, 47 per cent. Though it is only justifiable to consider a case tuberculous if it is positively proved such, yet the clinical history and physical signs in several other cases left little doubt in my mind that they had been infected, but at the present time the disease was quiescent. Undoubtedly 47 per cent. is a low estimate.

Out of the difficulty to determine accurately the prevalence of tuberculosis, several questions arise. Is there a type of case starting in the usual way and progressing as a pure fibrosis with recurring attacks of bronchitis and pleurisy, which, going on and on finally brings about heart failure and death without any superadded bacterial infection? And, what is the cause of death in the lung diseases to which the miners are liable?

In reply to the second, it can safely be concluded that at the present time all Bendigo miners dying of their respiratory diseases die of tuberculosis. This statement is based on the final ending in 27 almost consecutive cases, the only exception being that of a man who died of acute pneumonia, and who showed no signs of tuberculosis in his lungs. This series of cases also furnishes the answer to the former question. In reply to which I can only state, though it is conceivable that such an ending may happen, nevertheless I did not see any case to support a non-tuberculous cause of death. Tuberculosis is so prevalent that such susceptible cases become infected before the fibrosis and bronchitis reach so advanced a stage as to produce heart failure of themselves.

Pathology.—The pathology is based on the evidence obtained from 19 post-mortem examinations, and the results of various histological specimens. This series exemplifies well the stages in the disease. The lungs from two miners of the class commonly regarded as healthy, but who were accidentally killed, show the early changes. Several others, dying of diseases other than pulmonary, furnish far advanced fibrotic and early tuberculous lungs. Finally are given descriptions of the lungs from miners who succumbed to their lung diseases.

Microscopic examination in the early cases shows the desquamation of the ciliated lining epithelium of the bronchi with the signs of a chronic catarrh. This destruction of the protecting cell layer facilitates the penetration of the lung tissue by the dust-laden phagocytes, and even by the angular dust particles themselves, which are found in innumerable numbers embedded in the lung tissue. Primarily the dust is carried to the peribronchial lymphatics, and shortly the glands at the root of the lung become pigmented and marbled black, and finally jet black. The dust particles are seen to be on the whole in elongate, well-bounded areas, which are the lymphatic vessels blocked by their presence. In all the alveoli, as well as in the bronchioles and larger tubes, signs of catarrhal inflammation abound in the proliferation and shedding of the epithelium and the presence of phagocytic cells free in the alveoli and closely packed with dust particles. In the lymphatics many of these particles are dropped, perhaps as the result of the death and disintegration of the phagocytic cells. Being deposited in the tissues, the jagged edges set up a low chronic inflammation with the production of formative cells and fibrous tissue which envelops the irritating particles. However, with this there is no fresh production of new blood vessels, while the already existing ones in many places become occluded. Thus the newly formed tissue interferes with the respiratory processes, and being of low vitality has small germicidal power.

A lesser division of the lymph drainage goes from the superficial parts of the lung to the root by way of the subpleural spaces. As a consequence of this, the dust being deposited in the same way brings about a general opaqueness of the visceral pleura. The dust pigmentation on section of the lung in the early stages is in small areas, but later on the discoloration becomes more and more uniform and darker, with the most intense changes in the bronchial glands and beneath the pleura, till finally the lung becomes jet black.

With the violent expulsive efforts to get rid of the mucus from the air passages, increased air pressure on the alveoli is a constant occurrence. Dilatation of the air cells results, becoming of coarser grade as time goes on. The whole result of the fibrosis is a tough, fleshy lung, inky black in colour and of normal or somewhat contracted size. Coarse emphysema is scattered almost uniformly throughout its substance, but there are no

large blebs at the margins. The substance is slightly gritty to cut, and on pressure a blackish fluid exudes. The condition is more than a widespread bilateral peribronchitis, for the whole substance of the lung is increased, but especially so in the neighbourhood of the bronchial tubes, and the condition may be regarded as a chronic slow pneumonia. The lung has undergone a process of carnification.

An analysis to determine the inorganic constituents of a Bendigo miner's lungs was carried out by Mr. Gustav Ampt. The results were compared with Hammarston's analysis of a normal lung. The important difference was in the silica. Normally present to the extent of 13.4 per cent., the miner's lung contained 40.5 per cent., or three times the former amount.

In a great number of cases, *pari passu* with the development of the lung fibrosis, a slow inflammation of the pleura has been progressing, spreading out from the root along the interlobar fissure. The adhesions are scattered at first, but they become continuous, and first the interlobar septa, and ultimately the whole pleural cavity, is obliterated, and the lungs become totally fixed to the chest wall. The thickening of the pleura and the adhesions, though diminishing the lung expansion, are protective against the development of pneumothorax.

In some cases the pleurisy is secondary to lung involvement, but then the site is frequently apical, and there are signs of consolidated or breaking down lung, with probably tubercle bacilli in the sputum. In many cases the first physical signs, however, are slight creaking heard at the sides in the region of the 5th interspace. The pleurisy in these cases is secondary to bronchial gland involvement, and, again, may be of tuberculous origin. Many other cases not suggestive of tuberculous infection presented signs of pleurisy. Other pleuritis are acute and of infective origin. These are rare as compared with the frequency of the chronic dry type.

As the net result of these changes, there is diminished elasticity of the lung, with impairment of chest expansion. This is still further diminished by the dense pleural adhesions which produce as well, in some cases, immobility of the diaphragm. Added to these are emphysematous changes in the lungs, and an associated bronchitis. All increase the liability to tuberculosis, and the damaged tissue, when once infected, has but little chance of again gaining the upper hand, and a fatal result sooner or later ensues.

The site of the infective process is, as in ordinary phthisis, usually apical. The infection in most cases is chronic and necrotic processes slow. The tuberculous nodules infiltrating the pigmented tissue are likewise pigmented, and the "black spit," that persists even after the miner has ceased work underground, is due to the presence of this softened lung tissue in the expectoration. Sooner or later softening occurs and cavities form. The walls, however, are extremely thick and fibrous, and the necrotic process is somewhat slow, whilst the bridges coursing across the cavities are thick and resist softening for a long while. Hence the comparative rarity of ulceration into the vessels, and hæmorrhage.

Any and all pathological lung changes may obtain in the miner's lung, but the common changes are dust pigmentation and fibrosis primary, with emphysematous changes, and at some time or other infection with the tubercle bacillus occurs, and the pathological changes peculiar to the inroads of that organism are altered somewhat, as the tissue affected is not normal but a fibroid lung.

Etiology.—The excessive mortality amongst the Bendigo miners being the result of lung disease at

once suggests vitiation of the air as the probable cause. The important difference in the air of quartz mines as contrasted with that of alluvial mines is the presence of rock dust. The carbonic acid gas is in excess in the alluvial mines, and yet there is no lung disease peculiar to or especially prevalent amongst the workers in these mines. Common, moreover, to both kinds and to all other mines is the absence of sunlight. The cause or causes, however, should be looked for in conditions that occur in one group and not in the other, and, again, the same or a similar one must coexist under other conditions to produce a similar disease of the lungs in classes of men engaged at other occupations. Thus, notwithstanding the presence of sunlight with stonemasons, filegrinders and the like, the dust inhaled at such occupations produces a fibrosis of the lungs similar to that common in quartz miners, whilst alluvial miners who are free from dust inhalation are not liable. Coalminers inhale a dust of a different nature, which does not possess the irritating character of the silica particles. Silica dust is, therefore, to be considered the cause of non-tuberculous miners' phthisis. It is constantly found in their lung tissue, enveloped by fresh fibrous tissue, formed in consequence of its presence. It can safely be asserted that, with the absolute prevention of dust, the lung disease would almost cease to exist. The other sources of air vitiation, as noxious fumes, are adjuvant causes, but of themselves do not produce sufficient detriment to health to bring about lung disease.

Miners' phthisis (non-tuberculous) is thus a typical example of a disease brought about by the mechanical action only of dust particles. It is a disease of purely local origin, and continues as such till tuberculosis with its specific bacillus is superadded. This other important etiological factor in the disease—the infection by the tubercle bacillus—obtains to the extent of 47 per cent. at least in the cases, while it is the cause of death in all cases dying of their lung disease, saving the small proportion that are carried off by acute pneumonia, which is but slightly in excess of the percentage of fatal cases of pneumonia amongst adult males.

An examination of the opsonic indices in a few cases showed that miners as a class in no respect differ from healthy male adults in their normal resisting power to infection.

When does the tuberculous infection take place? The possibilities of infection underground from miner to miner are great so long as infected miners are permitted to go below. The indiscriminate spitting of tuberculous miners is to be deprecated much more so away from fresh air and sunlight than even on the surface. In Bendigo there are certain houses that may be termed tubercle houses, which several families have occupied in turn, and which are said never to have been free from a case of consumption. The bacilli inhaled come directly or indirectly from some pre-existing case of consumption, and the infection occurs in their own homes or at places of public resort.

The two factors are to be looked on as the causes of miners' phthisis, but there are predisposing causes. The oppressive heat and moisture of the mine air do not appear to be highly injurious, as stokers and dwellers in tropical climates are subject to similar conditions. The sudden change of temperature on ceasing work and coming to the surface is attended with greater risk. These repeated chills, though minor factors, yet tend to aggravate any existing respiratory disease and to render the way more easy for bacterial invasion to occur.

The gaseous vitiation of the mine air frequently acts

The discomfort of working in the badly ventilated mines has a depressing influence causing among miners an abnormal craving for stimulo-sedatives. The results of observation again and again prove the tubercle bacillus to be the Nemesis of defective ventilation. It is therefore imperative that improvement be brought about in the mine ventilation at Bendigo.

A passing comment must also be made on the housing of the miners. A most noticeable deficiency is the almost entire absence of ventilators, whilst the windows are often not larger than a foot square, opening, it may be, only half-way. The drainage also, as might be expected in a city that has rapidly grown, has many faults. Far too frequently do the drain lead only into the nearest gully.

The hygienic deficiencies are of minor import as compared to the damage to the lungs underground in maintaining the high death-rate due to tuberculosis. All, however, play their part in the etiology of the disease, and indifference to sanitary and hygienic laws brings its own penalty.

Prognosis.—In the silicosis the outlook is good, provided the miner ceases work underground before great damage to the lungs takes place. With improvement in his general health, brought about by change of occupation, the symptoms become less urgent. If, however, the fibrosis is advanced the outlook is bad. Sooner or later, unless carried off by some intercurrent disease, tuberculosis is superimposed. This infection, as shown by the post-mortem results, is not necessarily fatal; but the chance of recovery with previously damaged lungs is remote. With suitable care the disease can be checked and life prolonged.

The mode of death is most commonly by gradual asthenia, with marked emaciation, and finally syncope. In a small proportion oedema of the extremities is a marked symptom, and death comes about from myocardial failure. The duration of life, as stated before, subsequent to tuberculous infection is about five years, or a little longer than the average case of consumption amongst non-miners.

Prophylactic Measures.—In the report on mine ventilation some advisable improvements were brought forward, and emphasis was put on the necessity of the more rigid enforcement of the laws relating to the suppression of dust. To supplement what was then suggested, it may be stated that there are three methods of controlling the dust nuisance—(a) at the place of origin, (b) from circulating in the mine air, (c) by filtering the air as the men inspire it. The second may be dismissed as a practical impossibility, whilst the third brings in the subject of respirators. However efficient these may be, they cause embarrassment to respiration. There is thus only left the prevention of dust at its origin. Dust is formed in most mining operations—in blasting, in shovelling, and throwing the rock and quartz down the shoots, and above all in rock-drilling. The unwillingness of the individual miner to use a water jet with the rock drill is almost beyond comprehension. The beneficial effects of water after blasting is well known, and buckets of water are frequently thrown down a winze or shaft after blasting; but it is better to use a smaller quantity of water in a more efficient way as a jet or mixed with air as a fine spray. Water under any pressure and compressed air are to be had in all mines. When discussing the conditions of mining, the unsatisfactory state of the sanitation and ventilation below ground was commented upon. It is now only requisite to emphasise the necessity for improvement, seeing that the defects in these matters play no small part

in predisposing the miners to tuberculosis. The problem of dealing with the tuberculous infection to a large extent depends upon diminishing the sources of possible infection—viz., preventing the spread of bacilli-laden materials from infected individuals. The total destruction of infected sputum is thus of paramount importance. The only certain way is by burning. To ensure due regard to the laws governing the prevention of infection there is urgent need for skilled attention and constant supervision. At the present time there is only one institution in Victoria with wards specially set apart for the reception and care of advanced cases of consumption. This is the Austin Hospital at Heidelberg. Other similar institutions should be established throughout the State. In no place is such a need more urgent than in Bendigo. Compulsory notification in itself is insufficient. As a corollary to notification consumptive homes should be provided for patients. While prevention of the spread of infection would thus be secured, the advanced consumptive himself would be benefited and his life prolonged. So much is this so that in a small proportion of these advanced cases the disease becomes quiescent and for practical purposes cured. Certainly all early cases should be given the chance of recovery at a sanatorium. Provision should be made for miners and non-miners alike, as the prevalence in either class is a source of danger to the other. Another proposal that was put forward was the appointment of a medical inspector of mines. In addition to performing the duties requiring such an officer and set out in the preliminary report, he might attend to other matters necessary to deal adequately with the already existing disease. There is thus more than work enough in the mining district for a first-class Government medical officer giving the whole of his time. The working of this important centre from the metropolis is injudicious. The financial gain by prolonging life would amply repay the expenditure. Dr. Norris' scheme for the appointment of district health officers receives ample justification from the needs of Bendigo, while the high mortality from tuberculosis amongst the miners makes it clear that it is necessary not only to improve the working conditions underground, but also by efficient measures to combat the inroads of the tubercle bacillus among the residents of the district.

Summary and Recommendations.—The excessive mortality prevailing amongst the Bendigo miners has been discussed. It is evidently owing to respiratory diseases, notably tuberculosis. Many of the men affected are young and in the prime of life. The number of fatal mining accidents is steadily diminishing, and this plainly indicates that more carefulness is being exercised to guard the life of the miner in the use of explosives and by the aid of safety appliances. The increasing mortality from disease clearly shows that the same concern is not manifested in the maintenance of the miners' health. Not only does this matter affect the mining class, but the miners become sources of infection to the rest of the community. Miners' phthisis is a typical example of a disease of the lungs brought about by the mechanical action merely by dust particles without absorption of them and with no poisoning of the system. It belongs to the group of diseases all similar in character embraced under the term pneumoconiosis; it is in fact a silicosis. From the nature of the lung changes the disease tends to progress and is never recovered from; though, with moderate fibrosis only, great improvement in the general health may render less obvious the dyspnoea due to the local disease. At first the disease is purely

local in the lungs and remains so till tuberculosis with its specific bacillus is superimposed and poisons the entire body with its toxins, in addition producing alteration in the nature of the pathological change in the lungs. From the pathology it is seen that any or all morbid lung conditions may occur;—hence the symptomatology is various. But all the symptoms point to lung disease, the characteristics being the extreme dyspnoea, and that even after subsequent life on the surface the sputum may still be bluish tinged owing to its containing broken-down pigmented lung tissue, and on examination under the microscope the angular jagged particles of dust may be detected in exactly the same condition as when they were inhaled, possibly a score of years previously. The popular idea is to class all lung diseases affecting the miners under the same heading, and it is not sufficiently appreciated that a man may have a chronic bronchitis with some slight impairment of his general health, with also dyspnoea on exertion, and yet there is no resulting danger to life. With change of occupation the catarrhal symptoms lessen, and though the dyspnoea persists, still with the improvement in the general health it passes almost unnoticed, and, unless it be extreme, does not hinder the carrying on of another occupation in which good health and a fair proportion of bodily energy is indispensable. In addition, there is the other class, 47 per cent. of the living affected miners, with similar symptoms at the onset, but their sputum contains tubercle organisms. The soluble poisons produced increase the constitutional symptoms, and the case progressively tends towards a fatal termination within a few years. The average duration of life after tuberculous infection is about five years, which is a somewhat longer period than is the case amongst non-miners. Though only 47 per cent. of the cases are infected, all miners dying of lung complaint die of tuberculosis. Of the causes predisposing to the bacillary infection, the irritation of and consequent changes in the lungs are the main ones. Minor factors, however, are the noxious fumes and defective ventilation in the mines and unhygienic conditions on the surface. The prevalence of tuberculosis is due to the careless and imperfect destruction of infected expectoration. From this brief but comprehensive summary of the nature and cause of the so-called "Miners' complaint," it is evident that though many amendments are possible, even necessary, in the existing laws, and also improvements in the management of the mines, miners have the safeguarding of their own health to a considerable extent under their own control. A miner's foremost consideration should be the care of his own health. In addition to the recommendations already furnished in the preliminary report, all of which receive ample support from the nature and causes of miners' phthisis, others to cope with the already existing disease are given:—1. Penalising carelessness in the destruction of tuberculous sputum and indiscriminate expectoration whenever the patient is aware of the infective nature of his complaint. 2. Establishing (a) a home for advanced tuberculous patients, (b) a sanatorium for the treatment of early cases of the same disease; both these should be established in the vicinity of Bendigo. 3. Making provision for invalid miners. With this object the Government should reorganise and take complete control of all funds available for the relief of disabled miners, subsidising the funds so that all reasonable demands upon them may be met. 4. Medical supervision of all miners affected with lung complaint in their homes.

The report closes with an expression of thanks to the trustees of the estate of the late Edward Wilson, who by instituting the inquiry and meeting all the necessary expenditure have placed the whole mining community under a deep debt of gratitude.

New South Wales State Children Relief Board.—At the monthly meeting of the State Children Relief Board the statistical returns for the month showed that 3970 children are now under the board's control, of whom 146 are permanently adopted without payment, 2127 are boarded out at rates varying from 5s to 10s a week, and 1262 are apprenticed to various occupations, and are in receipt of wages which are held in trust for them by the department until the completion of their indentures. The board is charged with the duty of inspecting the institutions established or maintained for the reception of children under seven years of age, apart from their parents. During the month St. Joseph's Orphanage at Goulburn has been inspected, and the issue of a license for the new premises at Kenmore recommended. Authority was given for the restoration of 12 children to the care of relatives, whose circumstances had so improved as to enable them to support the children. Two applications were refused.

Railway and Tramway Hospital Fund.—The 18th annual meeting of the Railway and Tramway Employees' Hospital Fund was held at the Railway Institute last month, and was largely attended. The president, in moving the adoption of the report and balance-sheet, referred to the rapid progress of the fund. At its initiation in 1890 only three hospitals would agree to receive patients on the terms of 15s per week from the fund for each patient sent in, with an equal distribution of the balance of the year's contributions amongst the hospitals at which patients had been treated. At that time the hospitals wanted the patients to contribute to their maintenance as well as the fund, but the promoters objected. Now they had hospitals in all the important railway centres willing to accept the terms of the fund. This state of matters, however, was not accomplished without self-sacrifice on the part of the collectors to the fund. Many who started to help the fund at the initiation in 1890 were still contributors. The report and balance-sheet were adopted. A vote of £10 was passed as a donation to the Civil Ambulance Brigade.

Large Medical Fees.—Nearly a century ago Sir Astley Cooper received £5000 for a trip to Vienna to attend upon Prince Esterhazy, and for a journey to St. Petersburg, to vaccinate the Empress Catharine II. Dr. Dimsdale received £10,000, an annuity of £500, and a Russian Barony. For attending the Nawab of Rampur during an attack of rheumatism an English army surgeon was rewarded by a £10,000 fee; the Czar of Russia once paid £15,000 to Professor Zacharine, of Moscow, for two days' attendance; Dr. Keyes, an American physician, received £12,000 for a pleasant trip on the yacht Valiant as medical attendant to one of the Vanderbilts; and Dr. James Gale, the blind medical electrician, received £50,000 (the largest medical fee on record) for a few weeks' successful treatment of a millionaire's leg.

Amongst the donations recently received by the Melbourne Hospital were one of £10 from Lord Northcote, and one of £20 from the shire council of Poowong and Jeetho.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The League of Mercy—Behring's Tulaselaktin—A Windfall for the Hospital Sunday Fund—The Habitual Drunkard—The Royal College of Surgeons—The Reduction of Infant Mortality—University College Hospital.

THE seventh annual meeting of presidents of the League of Mercy was held at St. Mary's Hospital on December 12th, under the presidency of Mr. F. Green. A letter was read from the Prince of Wales, grand president, in which His Royal Highness expressed satisfaction at the progress of the league. The letter further said: "His Royal Highness is glad to learn that the league will in all probability be able to hand over about the sum of £18,700 to the King's Hospital Fund. This is the largest amount which has yet been contributed, and it is most gratifying to His Royal Highness to know that the work done by the members of the league has served to render such valuable aid not only to the London hospitals, but also to the various local hospitals in the home counties." Lord Farquhar was unanimously elected chairman in succession to the late Earl of Mansfield. The hon. treasurer, Sir Henry Burdett, stated that the league's districts now numbered upwards of a hundred. Sixty-eight returns had, so far, been sent in, and the collections showed an increase of £773 on those of the preceding year.

The correspondent of the *Daily Mail* has received from the editor of the *Tageblatt* a transcript of the most important portion of Professor Behring's address on his new method of treatment for tuberculosis, delivered on December 11th at Stuttgart. The Professor is reported to have stated that this latest remedy, which he has named "Tulaselaktin," is derived from a combination of the virus of tuberculosis and chloral hydrate, and that in regard to it he has arrived at the following conclusions:—"First, it is still doubtful whether that phase of tuberculosis known as consumption of the lungs can be favourably influenced by my remedy. Second, one can, through intravenous, subcutaneous and stomacheic introductions of tulaselaktin, not only immunise tuberculous cows, pigs and sheep against tubercular infection, but also rabbits and guinea-pigs, with injections of three-tenths of a milligramme of my remedy as a first dose. The quantity is gradually increased during a period of a fortnight. Third, the maximum period of immunisation is not attained before five to twelve weeks after the completion of the immunisation treatment. Fourth, immunisation with the tulaselaktin treatment is to be judged exactly as that immunisation method which I formerly described as mithridatisation. Fifth, the progress of the immunisation process is regulated by the quantitative estimation of tubercular protective bodies in the blood serum with mithridatised individuals. Sixth, tuberculous protective bodies discovered by me go out of the blood into milk, and it is thereby possible to immunise a suckling child either with the milk of its own mother or that of animals, provided both animals and mother have been treated by my immunisation process. Seventh, it will be necessary through further animal experiments to determine if for practical purposes the protection of nurslings against tuberculosis can be done through the immunisation of milk or through the mithridatisation treatment. That, however, has resulted in longer continuance of immunity. Eighth, those animals which by injection of tuberculin for diagnostic purposes

show themselves especially susceptible to this treatment, and thereby give positive proof that they are infected, can with good success be subjected to mithridatisation if they are well nourished, and if a clinical examination reveals no manifest tubercular affection. I therefore expect that those human beings who react to tuberculin, if not phthisical, can be healed and immunised. Ninth, the question as to whether tubercular individuals can be freed of tuberculosis by the mithridatisation treatment can only be answered with any certainty upon the basis of comprehensive therapeutic statistics. Tenth, well nourished cows which exhibit no signs of tuberculosis, except that of the appearance of tubercular bacilli in the milk, rabbits with artificially-produced tuberculosis of the eye, pigs with glandular tuberculosis, and guinea-pigs with chronic progressive lung tuberculosis, have been treated with success by my curative tulaselaktin remedy. From these therapeutic experiments I am justified in recommending the tulaselaktin cure in similar cases of human tuberculosis. The net result of these observations is, we may anticipate, that tulaselaktin is destined to play a useful and practically important rôle in the curative treatment of scrofulosis, especially, however, in the combating of consumption, through the immunisation of nurslings."

A meeting of the Metropolitan Hospital Sunday Fund was held at the Mansion House on November 30th, under the presidency of the Lord Mayor. Mr. Sydney Holland, one of the executors of the will of the late Mr. George Herring, said that after certain legacies had been paid, the Hospital Sunday Fund would benefit to the extent of £600,000 from the estate. Lord Stamford moved a resolution of condolence with the relatives, and this was seconded by Sir William Church. The council further resolved to place in the Mansion House a marble bust of Mr. Herring, with a copy of the letter sent to the executors by the King. The council decided to recommend that June 9th be fixed for the next annual collection.

The report of the Inspector under the Inebriates Acts, 1879 to 1900, for the year 1904 was issued on November 23rd as a Parliamentary Blue Book. Dr. Braithwaite devotes the major part of his report to the question of habitual drunkards and their treatment, and gives expression to the following chief conclusions arrived at as a result of upwards of seven years' experience:—" (1) That the majority of persons who have been sent to reformatories are suffering from obvious and sometimes extreme mental defect; (2) that the defect in question is mainly due to congenital weakness which, possibly only just evident at the start of life, has been intensified by various influences, and supplemented by degenerative changes, until it has become permanently unimprovable; (3) that the increase of original defect, and the addition of brain degeneration, are due to long-continued drunkenness, practically unrestrained, and to the oft-repeated abrupt stoppage of liquor resulting from innumerable arrests and imprisonments; (4) that the committal of habitual drunkards to prison has proved useless in that it has failed to cure, deter or afford protection to the community, and inhumane because it leads to moral degradation, causes or increases mental defect, and removes all hope of reformation; (5) that the only chance of reformation for habitual drunkards depends upon their early committal to special medical treatment and avoidance of the prison routine to which all cases have been subjected hitherto; (6) that chronic drunken recidivists who have become mentally defective, irreformable and hopeless, should be committed to reformatories for full terms, and recommitted thereto

as often as necessary, so that detention may be continuous, or as near continuous as the law permits, continuous detention being justifiable on account of helpless condition, danger to the community, and the constant charge such persons are upon public funds." The report further declares that while the criminal drunkard and the person who wants to cure himself are both provided for, it is essential that some means should be found of reaching the large section of the inebriate population which does not come under either of these categories.

The twenty-second annual meeting of Fellows and members of the Royal College of Surgeons took place on November 15th, Mr. Henry Morris, president, being in the chair. Mr. Joseph Smith moved a resolution, which was seconded by Sir Charles Hutchinson, and carried unanimously, reaffirming the desirability of admitting members to direct representation on the council, "which, as now constituted, does not represent the whole corporation." Dr. W. G. Dickinson's resolution—"That this meeting recommends that when the question of admitting women to the College examinations is brought before the Fellows and members, this should be done by means of a poll of the Fellows and members"—was also carried. The following resolution, moved by Mr. George Brown, was carried by a large majority:—"That this meeting strongly urges the council to use all its influence to secure the raising of the standard of the preliminary examinations in general education and in science, and this meeting is further of opinion that the time has arrived when chemistry, physics and biology should be treated as matters of preliminary education, and an examination passed in them before the commencement of medical studies." A cordial vote of thanks to the chairman for presiding, coupled with congratulations to the ex-president—Sir John Tweedy—on receiving the recent honour of knighthood, ended the meeting.

When Alderman Broadbent took office as Mayor of Huddersfield two years ago, he startled the municipal world by a novel scheme to reduce the rate of infant mortality. He selected the district of Longwood for the purpose of his experiment, and to parents living there he offered £1 for every child born during his mayoralty that was reared to the age of 12 months. The result of the two years' experiment was made known on November 8th. The first baby to receive the promised birthday gift was born on November 10th, 1904, the day after the Mayor had assumed office, and the last received the gift on Thursday, November 8th, 1906. The Huddersfield rate of infant mortality has averaged 139 per 1000 for 10 years, and in the district of Longwood the average has been, for the same period, 122. During the two years there were serious epidemics of whooping-cough and measles to contend against, and the last summer was one of the most deadly on record. Altogether 112 babies received the promissory note card. Of that number 107 actually received the gift offered. Out of the 112, four died, and one was removed from the district. If the four registered deaths only were counted, the figure was 35. If the missing baby were reckoned as dead the figure was 44. If, also, the deaths of two other children who were born before his scheme was commenced, but had died during the period of experiment, were allowed for, the figure came out at 53, and that was the least favourable figure to compare with the previous averages of 122 in the district experimented upon, and 139 for the whole town. It will thus be seen that the infant death rate for the experiment was well under half the previous average death rate. The Mayor's own estimate of

the success of the experiment was that it was astounding, and provided an example which, if followed, would result in the saving of tens of thousands of infant lives.

The official opening of the new buildings at University College Hospital was performed on November 8th by the Duke of Connaught. The Duke, who was accompanied by the Duchess of Connaught, was received by the Duke of Bedford, president of the hospital, and Lord Reay, president of University College. A large and distinguished company had assembled to meet their Royal Highnesses. On reaching the platform, the Duke of Bedford presented an address from the hospital committee and the medical staff to the Duke of Connaught, and Lord Reay, on behalf of the Council of University College, addressed His Royal Highness, and outlined the excellent work which had been done by the Medical School. The Duke of Connaught, in acknowledging the addresses, said it gave the Duchess and himself intense satisfaction to be present on that occasion. He learned that 65,000 in and out-patients were treated by that hospital every year. The hospitals of London were many, and they were splendid institutions, generously supported by the public. The demand, however, was even now greater than the supply, and they must all feel extremely grateful to the late Sir John Blundell Maple for his noble generosity in providing the new buildings of that hospital. His Royal Highness referred to the distinguished medical men and surgeons who had filled the professorial chairs in that hospital in the past, and expressed the hope that their successors of to-day would follow in the steps of those who had gone before them and had done so much for the alleviation of human suffering. The Bishop of London then offered prayer, and the Duke of Connaught declared the buildings open. In doing so, His Royal Highness wished the institution every success, and expressed the hope that the new nurses' home, now in course of erection, would soon be completed. When that had been accomplished, University College Hospital would be one of the best equipped and most complete institutions of its kind in London.

Victoria.

(FROM OUR OWN CORRESPONDENT.)

Proposed New Melbourne Hospital Site—Typhoid Fever in Kew Asylum—Health Matters—Obituary.

FOR some months the medical profession in Melbourne has been divided upon the question of the removal of the Melbourne Hospital to a new site on Sydney-road, on land adjacent to the University, and now occupied by a pig market. A scheme has been evolved by which an exchange of sites is to be effected, the City Council handing over the pig market site and taking the present site in exchange. The idea is to rebuild the Melbourne Town Hall on the present hospital site and to sell the old Town Hall site, or build shops on it. It is claimed that by this means there will be a financial gain all round. It is not necessary here to go into the financial details. Our interest is more with the professional considerations. These have been thrashed out by correspondents in the daily press until one begins to doubt the truth of the saying that in the multitude of councillors is much wisdom. The majority of the staff of the Melbourne Hospital favour the new site as giving opportunity of building an up-to-date hospital, with especially better out-patient accommodation and provision for special departments. This at once brought forth correspondence from members of the

RANKIN.—February 17th, at the residence of his daughter, Mrs. W. C. Cameron, 96 Wellington-street, St. Kilda, Victoria, William Bailey Rankin, F.R.C.S., aged 81.

SCOTT.—February 18th, suddenly, at her daughter's residence, 213 William-street, Sydney, Elizabeth, widow of the late John Scott, of Faile, Brighton, Victoria, and mother of Dr. Scott, Armidale, and Dr. Scott, Scone. Interred Melbourne.

TRACY.—January 21st, at 63 Longridge-road, Earls' Court, London, Fanny Louisa, widow of the late Richard T. Tracy, M.D.

BOOKS RECEIVED.

- The Essential Similarity of Innocent and Malignant Tumours—A Study of Tumour Growth. By Chas. W. Cathcart, M.B., C.M. (Edin.), F.R.C.S. (Eng. and Edin.), with 86 illustrations. Bristol: John Wright & Co. 1907. Price, 9s 6d net.
- Anæsthetics and their Administration. A Textbook for Medical and Dental Practitioners and Students. By Frederic W. Hewitt, M.V.O., M.D. (Cantab.). Third edition, with illustrations. Number of pages xxxiii+627. London: Macmillan & Co. 1907. Price, 15s net.
- Surgery of the Rectum. By Fred. C. Wallis, M.D., B.C. (Cantab.), F.R.C.S. Number of pages vi+168, illustrations 55: size, demy 8vo. London: Baillière, Tindall and Cox. Sydney: L. Bruck. Price, 6s net.
- Aids to Dental Surgery. By Arthur S. Underwood, M.R.C.S., L.D.S., and Douglas Gabel, M.R.C.S., L.R.C.P. (Lond.), L.D.S. Number of pages vi+126. London: Baillière, Tindall & Cox. Sydney: L. Bruck. 1907. Price, 2s 6d net.
- Transactions of the American Dermatological Association at its 29th Annual Meeting, held in New York, December, 1905. Official Report of the proceedings by Chas. J. White, M.D.
- The Diagnosis and Treatment of Intussusception. By Charles P. B. Clabbe, L.R.C.P. (Lond.), M.R.C.S. (Eng.), Hon. Surgeon to the Royal Prince Alfred Hospital, Sydney, Hon. Surgeon to the Royal Alexandra Hospital for Children, Sydney; Joint Lecturer in Clinical Surgery at the Sydney University, Edinburgh and London; Young J. Pentland. 1907. Sydney: Angus & Robertson, Ltd. Price, 4s 3d, post free.
- Woman: A Treatise on the Normal and Pathological Emotions of Feminine Love. By B. S. Talmey, M.D. New York: The Stanley Press Corporation.
- Transactions of the Medical Society of London, Vol. 29th. Edited by J. S. Russell, M.D., F.R.C.P., and Cuthbert S. Wallace, B.S., F.R.C.S. London: Messrs. Harrison and Sons.
- The Essentials of Histology, Descriptive and Practical, for the Use of Students. By E. A. Schafer, LL.D., Sc.D., F.R.S. Seventh edition. London, Paternoster Row: Longmans, Green & Co. Price, 10s 6d net.
- Clinical Observations on Arterial Blood-Pressure. By R. R. Stawell, M.D., D.P.H. Melbourne: Stillwell & Co. 1905. Pamphlet.
- Case of Subacute Combined Sclerosis of the Spinal Cord. By R. R. Stawell, M.D., D.P.H. Pamphlet.
- The Harvard University Catalogue, 1906-7. Cambridge, U.S.A. Published by the University. 1907.
- A Manual for Nurses on Abdominal Surgery. By Harold Burrows, M.B., F.R.C.S. Number of pages 142. London: The Scientific Press, Southampton-street, Strand, W.C. Price, 2s 6d net.
- Anæsthetics, their Uses and Administration. By Dudley Wilmot Buxton, M.D., B.S., M.R.C.P. Fourth edition. Pages, viii+415. Crown 8vo. London, 136 Gower-street, W.C.: H. K. Lewis. Price, 7s 6d.
- The following books have been received from Messrs. W. B. Sanders & Co., Philadelphia, per Mr. Jas. Little, of Bourke-street, Melbourne:
1. A Manual of the Practice of Medicine. By A. A. Stevens, M.D. Seventh edition, revised. 12mo. of 556 pages, illustrated; flexible leather. Price, 9s 6d.
 2. Atlas and Textbook of Human Anatomy, Vol. 1. By Prof. J. Sobotta, of Würzburg. Edited, with additions, by J. Playfair McMurrich, Ph.D. Quarto vol. of 258 pages, containing 320 illustrations mostly in colours. Price, 25s per volume, or £3 15s complete.
 3. Atlas and Epitome of Dentistry. By Prof. Gusto Preeswerk, of Basel. Edited, with additions, by Geo. W. Warren, Prof. of Operative Dentistry at Pennsylvania College of Dental Surgery. With 44 plates in colours, 152 text illustrations, and 350 pages of text. Price, 12s 6d net.
 4. The Immediate Care of the Injured. By Albert S. S. Morrow, M.D. Octavo of 340 pages, with 238 illustrations. Price, 10s 6d.
 5. Surgery: Its Principles and Practice. By various authors. Edited by W. W. Keen, M.D. Vol. 1, with 260 text illustrations and 17 coloured plates. Price, cloth 30s, 5 vols., complete £77.

Aids to the Diagnosis and Treatment of Diseases of Children. By John McCaw, M.D., B.U.I., L.R.C.P. (Edin.). Third edition. Number of pages xiv+383, illustrated. Foolscap 8vo. London: Baillière, Tindall & Cox. 1907. Price, 4s 6d cloth, 4s paper.

The Past, Present and Future of the School for Advanced Medical Studies of University College, London. By Rickman John Godlee, Holme Professor of Clinical Surgery, Surgeon in Ordinary to H.M. the King. Illustrated. London: Great Litchfield-street: John Bale, Sons and Danielsson, Ltd. Price, 2s 6d net.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Dr. J. Ashburton Thompson, Sydney; Dr. W. G. Armstrong, Sydney; the Secretary Benevolent Society of New South Wales; Dr. L. E. Ellis, Manilla, N.S.W.; Dr. W. B. Studdy, North Sydney; Messrs. W. B. Saunders & Co., Philadelphia; South British Fire and Marine Insurance Co., N.Z., Sydney; Dr. Bennett, Ballarat, Victoria; Dr. John Steel, Ballarat, Victoria; Mr. A. MacDonald, 127 A-street, Washington, D.C.; H. C. Anderson, Esq., Sydney; Dr. Bruce A. Anderson, Westbury, Tas.; Messrs. Fry & Co., Sydney; Messrs. Siebe, Gorman and Co., Ltd., Westminster Bridge-road, London; Reuter's Telegram Co., Sydney; Dr. H. V. C. Hinder, Sydney; Mr. L. Bruck, Sydney; Mr. G. T. Taylor, Hobart, Tas.; Kenneth W. Millican, M.D., M.R.C.S., St. Louis, Mo.; Dr. Robert McGregor, 414 Genesee Ave., Saginaw, Michigan; G. H. Knibbs, Esq., Commonwealth Statistician, Melbourne; Dr. S. J. Richards, Mount Morgan, Queensland; Dr. C. Reissmann, Adelaide; Dr. E. G. Reid, Nagambie, Vic.; Dr. London, Adelaide; Dr. Todd, Adelaide; Dr. A. B. Brockway, Brisbane; Miss M. MacLachlan, Sydney; The Lambert Pharmacy Co., St. Louis; The Denver Chemical Manufacturing Co., New York; Dr. Handcock, Newcastle; Dr. W. S. Byrne, Brisbane; Mr. Loxton, Sydney; The Secretary Smithsonian Institution, Washington, U.S.A.; The Librarian, McGill Library, Medical Faculty, U.S.A.; Dr. E. S. Stokes, Sydney; Dr. J. H. Bond, Thames, N.Z.; Dr. Gunson, Adelaide; Dr. Tange, Sydney; Dr. Scot Skirving, Sydney; Dr. A. A. Hamilton, Adelaide; Edwd. Livinge, Esq., M.D. Sec. Royal College of Physicians, London; Dr. B. B. Ham, Brisbane; Dr. Bryant, Melbourne; Dr. R. Hamilton Russell, Melbourne; Mr. O'Neill, Sydney.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor."

We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valerian Aldehyde, which make themselves unpleasantly noticeable in crude oils by the tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc., and exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reduces sensibility of mucous membrane. *The Lancet* says: "In the experiments tried the Jujube proved to be effective bactericidally as is creosote." *The Tititioner* says:—"Are also useful in tonsillitis,"

AUSTRALASIAN MEDICAL GAZETTE

No. 307.

SYDNEY, APRIL 20TH, 1907.

VOL. XXVI., No. 4.

PRESIDENTIAL ADDRESS.

*Delivered before the New South Wales Branch of the
British Medical Association.*

By F. Antill Pockley, M.B., Ch.M., M.R.C.S.,
Retiring President, Sydney.

CUSTOM has decreed that at our annual meeting you must submit to an address from the outgoing President. In this you have, on the present occasion, my sincere sympathy, and I trust that you will also give me yours. When you consider how many branches there are of this Association, and that each must hear its President's address every year, you will realise how almost impossible it is for one to find anything fresh to say.

One's choice of subject and the handling of it are also limited by the impropriety of putting forth anything of a controversial nature, when there is no right of discussion or reply. This disability, by the way, was the reason given by an eminent statesman not long deceased, for never staying in church to hear the sermon. As a compromise with you on this occasion I will promise you that my address will not be long, and where debatable matter is introduced I would say with Voltaire, "I give you my opinion, not as being good, but as being mine own."

As you will have seen by the report and balance-sheet, the branch has had a prosperous year. Our membership goes on increasing; our vitality is good. It is, however, a matter for regret that the names of many eligible and desirable men do not appear on our roll, and still more must we deplore the fact that some members of our profession have deliberately cut themselves off from us and made themselves ineligible for membership. The length of the black list is a matter of some concern, and it is to be regretted that ostracised men cannot, or will not, see the error of their ways and seek to be rehabilitated.

I think we have reason to fear that with the spread of modern Socialistic doctrine the position and prestige of the profession will, in the near future, be seriously menaced, and, we be unprepared, will be undermined and

overthrown. Forewarnings are to be seen on all sides: in the extension of State medical services and the tendency to levelling down of the remuneration for such work; the alarming increase of hospitals beyond all proportion to the legitimate requirements of the sick poor, and of hospital work (which in this country so largely means gratuitous work for the State); in the increase of lodges and the admission to lodges of persons who should be ineligible; in the amalgamation of societies into district dispensaries paying fixed and inadequate salaries instead of *per capita*; and so on. There is one—and so far as can be discovered, only one—way of meeting this attack, and that is by organisation, unity and unflinching loyalty. This is so self-evident that it is not necessary to waste words in proving it. We have seen only within the last few days an instance of the results that can be thus attained, in the conceding by the friendly societies' delegates in conference with us, of the principle of the wage limit and payment *per capita*. Although we may realise the advantages of thus organising, yet we may be individually reluctant to make the sacrifices that may be required of us. A certain amount of faith and trust is necessary to enable some to make such temporary sacrifices as must in the end lead to good to the individual and to the whole body. And here I should like to record a word of commendation and thanks to a loyal few who during the past few months have voluntarily surrendered considerable emoluments in support of a principle at the call of their fellows.

As a united body we should be jealous of and resist any threatened invasion of our rights and privileges. We must close up our ranks and avoid internal dissensions. To this end the advantages, the vital need of an Association such as ours, are so obvious that it is quite unnecessary to dwell on them. It is enough to imagine what our condition would be if we had no such organisation. We should have no cohesion, no community of interests, nor means of letting those interests be known or understood, neither place nor opportunity for the discussion of matters pertaining to our profession—educational, ethical, or medico-political. We should be

merely a number of units or small cliques—perhaps unwittingly, possibly, though I should hope not wilfully, but none the less surely, injuring ourselves, our fellows, the public, and the profession to which we belong. We should know little or nothing of our *confrères* or of one another's work, and should lack the healthy stimulus of friendly rivalry, criticism and appreciation. We should be like sheep without a shepherd, winds driven by the wind and tossed, with no strength or influence, powerless for mutual help, impotent against the inevitable attacks from without or dissension within our gates.

Contrast this imaginary state of affairs with our present position, thanks to the existence of our Association. Contrast it still more with what our strength would be if every doctor in the State belonged to us, and if every other Branch in Australasia were similarly strengthened, and the whole federated and then joined to every other Branch in the Empire in one Imperial Association. What better service then can every individual member of the Branch render than to use his personal influence with any outside friends and bring every stray sheep into the fold.

In this connection I might refer to the long-wished-for joining of the split in the profession in our sister State, which has been brought about during the past year by the Medical Society of Victoria bodily joining the Victorian Branch of the British Medical Association. This is a step which will be of inestimable benefit to our brethren in that State and indirectly to our Branch and all neighbouring sections of our Association. It is to be hoped that, like the other States have done, Victoria will soon be able to overcome the difficulties in the way of making the AUSTRALASIAN MEDICAL GAZETTE their recognised organ. Without a common medium of inter-communication union loses a deal of its value and force. Unless the various branches are kept in touch in matters of medical polity they will be unable to formulate a common policy or act together in matters affecting their common weal, or in a crisis, and the only means of thus keeping in touch and sympathy is by having one paper that reaches us all.

Passing from this reference to our Association particularly, I would like to unburden my mind of some thoughts on the present position of Medicine generally—its dignity and prestige. I am inclined to think that these are on the wane, that the influence of Medicine is not so great nor its status so high

as, say, a generation or two ago. Why should this be? We might have expected that with the spread of so-called education amongst all classes, the general respect for our art would have increased; for I think it is the experience of all of us that it is from the most highly educated and cultivated members of the community that we receive the most appreciation. Next to this class, I think it is the poor but honest, hardworking peasant or labourer who most holds us in honour. It is the half-educated, generally wholly unlearned, and uncultivated middle-class tradesman, shopman, or business man, whose chief aim in life is the pursuit of the almighty dollar, who seems to be suspicious of our motives and methods. Is it because he has no soul above such sordid things that men to whom aims are not the be all and end all of existence must appear to him more or less fools or persons to be imposed upon or held of small account? Or if, on the other hand, he thinks—as sometimes no doubt he does—that this relegation of pecuniary profits to a secondary place by medical men is merely a pretence and a sham, he will regard us as knaves rather than fools? In either case we fail to command his respect. Perhaps it is no great loss. Inasmuch as money worship is more widespread now than formerly, this may then be one reason for our loss of prestige and influence. I think there can be no question that for all good things in heaven and earth there is less reverence now than of yore. Amongst the many, culture and refinement, honourable dealing, simplicity of life, and humanity, are not held in such high esteem as the possession of wealth. In placing a man, the question to be answered is with them not “What is his life?” or “What has he done?” but, “How much is he worth?” And although we may be fairly conceded in a measure the qualities I have mentioned above, we are certainly not as a class highly endowed with cash.

Again, in this age of all-round education, the doctor is no longer conspicuous amongst the few learned men of his day, as used to be the case, nor does he by his attainments stand out in such marked contrast to the rest of the world, and the pursuit of medicine being nowadays so much more exacting the general culture and learning of the medical men are not so extensive or so deep as formerly. We are trained more according to a common system, and all medical knowledge is more uniformly and rapidly diffused

so that we do not possess the giants nor the strong personalities of former times. We are all more or less forced into the same mould.

Moreover, this is an age of strain and stress, of hurry and bustle, and time cannot be spared for the exercise of the courtesies and amenities of life, and these are considered of small account. Like most proverbs, the one that "politeness costs nothing" cannot be accepted literally. It undoubtedly costs time. The man who is always in a hurry, who in this age has to be in a hurry, has little dignity or courtesy, and is apt to be brusque and sometimes brutal. If we be so to our patients and others, we cannot expect anything better in the way of treatment from them. The keener competition that exists in the profession nowadays is also a powerful factor in our undoing. In the struggle for position, or even for existence, we are apt to elbow or shoulder aside or unfairly jostle some who are in the race with us, and in this we unquestionably suffer in dignity and prestige. For instance, take the unseemly practice of canvassing and touting for hospital and even lodge appointments. This has come to be a recognised necessity for candidates. How degrading such a scramble is, especially when, as sometimes happens, the men to whom we go cap in hand are the village grocer, butcher, publican, or perchance the undertaker! One would not be greatly surprised if the next step were the offering of a substantial consideration for vote and support. It is whispered that this is actually done in a country that shall be nameless, and that there patronage is eagerly sought after chiefly for what the possessor can make out of it. I should like to see a resolution passed by our Association stigmatising personal canvassing as unprofessional conduct, carrying with it the same pains and penalties as other conduct inimical to the interests or the dignity of the profession. Again it is, I am afraid, sadly true that we are not altogether and always guiltless of the accusation of belittling and disparaging one another. Necessarily, in all large bodies of men there will be some who lay themselves open to criticism or blame, but if occasion demands that amongst ourselves we have to discuss the conduct of an erring brother, for Heaven's sake let us keep the matter amongst ourselves, and not discuss it or the man in clubs or proclaim our opinions from the housetops. Nor is speech necessary to

disparage a man. A shrug or raising of the brows, a smile, an inflection of the voice, may serve equally well. As Shakespeare said, "These hums, these shrugs, these ha's will sear virtue herself."

Apropos of unseemly squabbling amongst ourselves, there are two matters I might specially mention in which we suffer in dignity in the eyes of the public. The first is disputing over the possession of a patient, and the inevitable rancour that follows. If a patient becomes restive under one man's treatment and wishes to change his doctor, so long as the change is effected without transgressing any ethical rule, I cannot and never could see why the first attendant should feel affronted or have a grievance with his successor. Still less can I understand how a man can so far forget his dignity as to interview the patient and try to reason with him on the enormity of his conduct, and abuse him if he remain obdurate; and yet, I regret to say, this is sometimes done. How often is bad blood stirred up between two men because of this simple matter of changing the doctor. A little irritation is perhaps natural, but we should take it philosophically and not fall out with the other man. This thing has occurred to me many times, and yet I have managed to keep on perfectly friendly terms with the doctor and with the patient, and all in good time the tables have been turned, and the compliment has been returned. In fact, I have several good patients who go in turn to me or one or other of my *confrères*, and we are all quite satisfied with the arrangements, and far from being offended my colleagues and I are both amused and profited by it. How much more dignified is it, instead of quarrelling or being sore about it, if we see signs of restiveness in our patients, to ourselves suggest that he might like a change? The probability is (human nature being such as it is) that our very suggesting it will make the patient think he does not wish it; or if he does, we gain in dignity instead of forfeiting it by anticipating his intentions. If we go further and quarrel over it we also become a laughing-stock to outsiders and make an enemy of a *confrère*. If we bow ourselves out with a good grace we retain the respect of both patient and colleague.

The second source of trouble is the strained relations sometimes brought about between attendant and consultant. I am sorry to say that I think there is frequently ground for

grievance, and a certain amount of distrust is thus engendered in the minds of practitioners towards consultants as a class. This is a feeling that should not exist, for it portends ill to the whole profession, and will surely tend to lower its prestige in the eyes of the public. It is as much the duty of the consultant to teach the public to honour and appreciate the practitioner as it is for the latter to impress on the public mind the value of the consultant. In this there should be an attitude of equality and not of antagonism between the two; the province of the former being merely to assist the other for the good of the patient, on the assumption that two heads are better than one, or that one (quite likely as a result of fortuitous circumstances and not from any innate merit) may have special knowledge or experience of a particular class of case or kind of disease. As a rule I believe this proper relation and attitude are found; but I know there is an uneasy feeling in the breast of many men, especially amongst the juniors, put there by the certain knowledge that this relationship does not always exist, and that the consultant sometimes acts in such a way (I need not detail the process) that the case eventually becomes his property — and sometimes not only the particular case but his friends also pass from the practitioner concerned to the consultant. It cannot be wondered at that under these circumstances a brooding sense of irritation and distrust is engendered, which leads at last to forceful expression and to the making of a breach which is bad for the men concerned and for the profession generally, inasmuch as it gives the public another occasion to smile at our expense. If we do not one and all consistently endeavour to uphold the honour and dignity of our profession, every individual must expect to find himself reduced to a lower level both socially and professionally. Seniors or juniors, consultants or regular attendants, specialists or all-round practitioners, private or lodge doctors, we must all bear in mind that we are all members of one body politic, and that the interests of the one are inseparably bound up in those of the whole, and that our aims and objects must be for the good of the whole. No one class or individual can exalt itself or himself or benefit at the expense of others without the whole body suffering as well as the class or individual. The latter will suffer in loss of respect and support of professional

brethren, as well as of the public; the profession generally in loss of dignity. The analogy is perhaps not a very close one, but it will serve, to liken the leading men in our profession to the officers in an army, the rest to the subordinate officers and rank and file. No class is of any use without the other. Moreover, unless the officers keep in touch with the men and set a proper example at all times, in peace as well as in war, and gain their respect, not only will the men refuse to hold to them in a fight, they may even forsake them or destroy them; but in any case the disaffection will spread, and lead to the defeat of the whole army. So with us. We must all be united and in touch in our common interest, or else those who act counter to their fellows or who hold aloof will first go to the wall, and eventually the whole body will crumple up and be scattered to the four winds of heaven.

The strain and stress of our professional life have a narrowing effect upon us in another way. The boy who sets out to be a doctor has, from his school and college days, to apply himself so closely to his studies that he has little time to spare for home life or recreation. While the rest of the family are indulging in social or domestic relaxations or amusements, whether it be in the almost lost art of conversation, music, games, light reading, etc., the medical student must hie himself off to his lonely study, where glued to his books he loses touch with these things, and in time finds himself in a narrow, unsociable groove, from which it is awkward or impossible for him to emerge.

For the same reason he has not time for outdoor pastimes. He becomes a more or less solitary being. The student is ever so, as compared with the average man, and so he is restricted in the making of those early friendships that broaden and humanise a man (if you will pardon the solecism) and stand him in such good stead throughout his life; for it is unquestionable that most of us make our friends amongst those who share our games and hobbies rather than with the solitary burners of the midnight oil.

The man who is deprived of this social and athletic part of his early youth lacks something that is a loss to him all his life. He does not always play the game or toe the line or understand when one says, "Yes, but it is not cricket!" His social and moral code are apt to be different from that of his fellows, and the pity of it is that he does not know

it. Is not this perhaps more than any other the reason why the man who does not take his student life too seriously, but flits through it, failing now and then in his examinations but passing in the end, who takes the rough with the smooth, has his fun and his games, and his firm friends—why such a one is, because of his broader platform, wider outlook, and more human, sympathetic qualities, a more highly trusted and respected practitioner, with more dignity and influence than the hard-working, lonely student, who, though he may have much more medical knowledge and pass most brilliant examinations, is so aloof and cold-blooded and silent, and lacking in those essentials to success as well as to respect—a knowledge of human nature, sympathy, tact, commonsense, and a knowledge of the world and of all the rules of the game?

No less important to the doctor than to the student is the social side of life, and it is a very true saying that a man who has no hobby outside his business or profession is seldom any good in it. Every man should have his recreation and his playtime, and preferably for those who have to lead a studious, sedentary life, this should take the form of some open-air exercise. In this country there is no lack of opportunity for this, suitable to the man of any age. Cricket, tennis, rowing, sailing, swimming, shooting, fishing, cycling, motoring, riding, walking, golf, bowls, and so on, provide a variety of choice that should suit anyone. The man who takes up any of these and goes in for them in a proper spirit, but without allowing undesirables to become too vulgarly familiar, will be a better doctor than the mere student, and better liked and respected.

At the risk of being led on to be too discursive, I will add that I think we medical men should in our own interests, and also in the interests of our patients, have more holidays. The plea, "I cannot afford it," will not do. No man can afford not to. I am fully alive to the difficulties for the doctor, but there is always a way for the man who is not a misanthrope, or too absorbed in raking in fees, though even to him I would say you will be a richer man in the end if you take care of your machinery, that is your health, for it is your best asset. A month or six weeks holiday every year is in this climate little enough for every medical man to take, and if every practitioner would agree to do this, no one need fear that it would lead to his rivals

profiting by his absence, for it would work equally all round.

In Germany a scheme has been recently evolved and put into practice under which one doctor takes the work of another in turn at week ends, so that each alternate week the hard-worked practitioner gets his week-end off. A similar plan could be easily worked here by mutual arrangement between the doctors in any town or district.

Apart from the causes I have touched upon as possible explanations of the loss of dignity and influence of medicine, most of which are to some extent beyond our control, there is another cause for which we are directly responsible and blameworthy, and that is the way in which we allow our rights and privileges to be filched from us without a murmur of protest. An example of this is seen in the indifference shown by the medical staffs of hospitals to encroachments on their particular province. There are certain matters in hospital administration in which the medical officers' opinion should be dominant, and would be if the staff could be induced to take the slightest interest; but they are so careless of their dignity or position that they will not attend meetings to discuss such matters, or if they do they are too timid to assert themselves. Is it any wonder, then, if we find ourselves gradually more and more ignored in such matters until at last we come to have practically no voice in the administration. For this I say we have only ourselves to blame.

Another matter I would like to refer to, and one that concerns our Association, and that is the conspicuous absence of many of our leading men from our meetings. I have no one in particular in mind, and do not wish to be thought censorious, but am only expressing a general feeling that we should like to have the senior men present more often and hear them speak, for after all nothing puts such life into a discussion as the words that are the outcome of ripe experience and long practice. It used to be different 15 or 20 years ago. Why the change now? I do not know. Then the seniors took a greater interest in our proceedings, and turned up at meetings in far greater numbers, and our discussions were much more edifying. I remember well, and doubtless many others will recall, a discussion on puerperal eclampsia in which nearly all the senior men in the profession took part, and how the hall echoed with applause when the late Dr. Chambers

sat down after giving such a full and masterly exposition of all that was worth knowing on the subject as could only come from a man who was giving us things first hand and not from books. Our meetings would unquestionably gain in dignity and usefulness if the older men would come more regularly.

Another somewhat delicate matter which seems to me to be affecting our reputation as individuals and as a profession is the opinion one hears expressed with increasing frequency, that we are too ready to advise surgical operations. Rightly or wrongly—I think wrongly—the impression appears to be gaining amongst the public that there are many unnecessary operations performed nowadays; but just as I am sure in my own mind that the imputation cast on the profession is a wrong one, so sure am I that in some few instances operations are rashly undertaken, without sufficient justification, and these few instances are seized upon by the public as a text to preach and generalise upon. (I heard only yesterday of a country practitioner who had operated on 30 cases for appendicitis in the last six months.) As this impression is abroad, it behoves us to gang warily, and to exercise more scrupulous care than ever in deciding on the advisability of surgical interference, but none the less not to be deterred by public opinion from being firmly insistent when we are convinced that operation is for the patient's benefit. One of the saddest results of people thinking that operations are often done unnecessarily is that they refuse surgical aid when it is absolutely the only hope for them. If any other guide should be necessary beyond our own experience and judgment in deciding for or against operation it is to be found in the answer to the question, "What would I advise if the patient were wife, sister, mother, father, or child?"

And now, gentlemen, I am sure I have wearied you long enough. In conclusion, let me say that when the future history of medicine comes to be written I hope it will not be said that it was in our day that the dignity of medicine fell into decay. May we never neglect to uphold its honourable traditions at all costs, sinking our individual differences, and being prepared to resist encroachments on our privileges and to make sacrifices for the good, the unity, the honour, and dignity of the whole.

It remains for me to say that I most sincerely thank you for having put me into the

honourable position of President of this great Association. The post is one of very great honour, and thanks to the generous support I have had from you one and all it has been a very pleasant one, and has not entailed very hard work. This (the work) has been done by our indefatigable hon. secretaries (Dr. Hankins, whose resignation we so much regretted, and Dr. Crago, who has so ably taken up the work), assisted by Mr. Green. These are the men who do nearly all the work of the Association, and it requires one to be on the Council to see and understand what an immense amount of time they give to it, and that it is a labour of love is not the least admirable feature about it. My share in the work has been simply to preside at meetings of the Council and of the Branch, and this has been an easy task, for more loyal, painstaking colleagues than my fellows on the Council no man could wish for, and I have to thank them and all of you for helping me along and making things easy.

NOTES ON A SERIES OF NINETY ABDOMINAL OPERATIONS.

By William S. Byrne, M.D. (Dub.), M.R.C.P. (Lond.),
Hon. Surgeon Lady Lamington Hospital,
Brisbane.

I AM rather ashamed to confess that it is only within the past two years that I have been in the habit of taking regular notes of my section cases, and that even this series of 90 cases is not complete, as the notes of 25 or 30 other sections which were performed during that period in a private hospital are not to be found.

The cases comprise the following:—

	No. of Operations.	Deaths.
Ventro-suspension	32	none
Oophorectomy	17	none
Hysterectomy	16	1
Ovarian tumour	7	none
Intestinal adhesions	1	none
Internal shortening round ligaments	3	none
Gastro-enterostomy	2	1
Removal of pus tubes	5	none
Extra-uterine gestation	2	none
Omental tumour	2	none
Resection of ovaries	2	none
Appendix cases	7	none
Fæcal fistula	1	1
Herniæ	4	none
Myomectomy	1	none
Cholecystotomy	1	none
Cystotomy	1	none
Rupture of intestines	1	none

The reason of the difference in the number of operations and the number of cases is that in several patients more than one procedure was found necessary; for instance, in many cases of pus tubes and ovarian troubles it was found necessary to suspend the uterus, or to remove the appendix.

Of the seventeen cases of oöphorectomy it was found necessary to remove both ovaries in four instances; but I make it a rule, if possible, to save one ovary for several reasons, although it is my experience that in a certain proportion of cases when one ovary is removed for gross disease, after a year or two the patient returns with the same trouble on the other side, and puts to one the poser: "Why did you not remove both when you were about it?" It is sometimes very difficult to decide what one ought to do under the circumstances. The abdomen being open, one ovary is manifestly diseased and must be removed, the other is suspicious—it may be cystic or adherent, or some other slight lesion may be present. One has the feeling that if it is left it will cause future trouble, and on the other hand if it is removed all the discomforts of a premature menopause is induced, to say nothing of the mental effect on the patient, who feels aggrieved because she is rendered incapable of bearing children. However, as I have said before, where possible I always leave one ovary or part of one.

Of the five cases of pus tubes, in two both sides were affected; in three, one.

As a rule, supracervical amputation of the uterus is not a very difficult operation, but the little more one has to do in complete removal of the uterus makes all the difference. I find the greatest difficulty arises, after tying off the uterine arteries, in cutting cleanly through the vaginal walls. Consequently, I now always commence the operation in the vagina, opening into the peritoneum through the cul-de-sac, and separating the bladder from the uterus in front as far as possible. This procedure renders the future steps of the operation through the abdomen more easy than a purely abdominal hysterectomy.

Of the sixteen hysterectomy cases, six were complete and ten supracervical or subtotal.

We do not now see very often those huge ovarian cysts that were so common fifteen or twenty years ago; only one of my cases answered to that description, and one was a dermoid.

In the series of ninety cases there were three deaths, and although we learn more from

our failures than our successes, I must admit I am pleased that even at the expense of increased knowledge my mortality rate has been so small. In the large majority of patients recovery was uneventful and presented no points of interest, but in a few various complications arose which are worthy of special mention. A most interesting and instructive case was that of the patient on whom I performed complete hysterectomy, and who died on the seventh day after operation. She was a woman of 63 years of age, and had suffered from uterine cancer for twelve months. After operation there was evidently a great deal of shock, and the usual remedies were employed, as well as saline infusions under the breasts and into the rectum. On the following day there was some distension, and surgical emphysema was detected, extending from the wound out to the crest of the ileum on the right side. On the third day the patient had quite recovered from the shock, and in response to an enema passed a large quantity of flatus. There had been the usual vomiting up to this time, but it was not excessive; the distension was confined to the upper part of the abdomen, was very soft, but the pulse rate was giving me some anxiety—114 to 128. On the fourth day, as no movement of the bowels had occurred, purgatives were begun. Calomel, sulphate of magnesia, concentrated salts and turpentine enemata, seidlitz powders, croton oil, aloin, and colocyuth pills were tried in turn for the next few days, but without any effect. Small quantities of brown fluid were vomited continually. Fifth day, vomiting everything; distension soft; pulse rate 88-100, temperature 99.6; sleeping on and off all day. Sixth day: Vomiting still going on; distension confined to upper half of abdomen, soft and not very great; pulse rate 84, temperature 98.8. The matter was urgent, and I felt that if only I could get the bowels to act the patient would recover. As the woman was evidently dying from obstruction of some kind, although the vomiting had never been anything like stercoraceous, and as her pulse rate was so good, I felt that an effort should be made to relieve the bowel condition. I was in great doubt as to the cause. If mechanical obstruction existed it was difficult to explain the absence of stercoraceous vomiting, the slow pulse and small distension; but if there was no mechanical obstruction, why could we not get the bowels to act? On the second

day, flatus in large quantity had been passed, showing that at that time at all events the *prima viæ* was clear. I got Dr. Wilson to give the patient a small quantity of chloroform and rapidly reopened the abdomen, but could not find in a hurried search any strangulation, so I opened a piece of distended bowel, stitched it to the skin, and closed up the wound. Only a small quantity of flatus passed up to the moment of death, which took place 14 hours later. At the autopsy the pelvic wound was found completely healed; there was no evidence of any peritonitis. I traced the bowel from the rectum up to the pylorus without finding any mechanical obstruction whatever. The colon and two feet of the ileum beyond the cæcum was collapsed, but at that point the distension began. The line of demarcation between collapsed and distended bowel was most evident, but there was no mechanical cause. The air could be pushed along from the distended portion into the collapsed without difficulty, and evidently the cause of the vomiting, obstruction and death was intestinal paralysis. I have always been more or less sceptical as to paresis of the intestine being enough to cause such obstruction, but this case is an object lesson. The line of obstruction was marked and definite, but the cause was not mechanical.

The second death occurred quite suddenly on the tenth day after gastro-enterostomy in a woman of 53. The patient was seen by me that morning, and had been making a normal recovery, was taking soft foods, fish, bread and butter, and such like. In the afternoon she got a sudden heart attack, and died in five minutes. From the relatives I found that for some time she had been suffering from faintings and heart attacks.

The third death occurred five days after an attempt had been made to close a deep faecal fistula. A stinking abscess was found deep down in the pelvis, and a gauze drain was inserted, but septic peritonitis supervened. This was the only case of the whole series in which a drain was used.

Severe shock after operation took place in two cases—one was in the case of complete hysterectomy just mentioned, the other was in a patient from which a large ovarian tumour had been removed. No pulse could be felt for several hours; the temperature was subnormal and the condition was very grave for two days, after which improvement was rapid.

I have mentioned one case of grave intestinal paralysis with a fatal issue; let me instance another, which fortunately recovered. I removed two very large pus tubes from a woman of 31 years of age. The adhesions to bowel were very extensive, and during the process of breaking them down, one tube ruptured. There was a large extent of raw surface left after removal, which was covered over as far as possible with omentum and the operation finished without drainage. There was a good deal of distension for eight days, and there was on two occasions on the second day a large vomit of black fluid. The bowels were most difficult to get going, but on the fourth day action took place. For three weeks there was great trouble with the constipation—distension, which lasted more or less all the time, would suddenly become excessive, the temperature would rise, and, as the ward sister said, we would have a regular "picnic" to get an evacuation. The patient went out of hospital with a certain amount of distension, and I have seen her several times since. It only gradually subsided, but her health has been very good.

In one instance, whilst removing a large pyosalpinx, I found the pus extending into the wall and cavity of the uterus, and consequently I performed hysterectomy. Recovery was without incident. This was the second time I had seen such a condition.

On another occasion I was engaged in dilating the cervical canal in a patient of 40 years of age, and was using Hegar's dilators for the purpose. There was a good deal of difficulty in getting each one past the internal os, but after passing a number 8 they seemed to pass too easily. On examining carefully I found a rent in the side of the uterus about the internal os, and I was quite certain I had entered the peritoneal cavity. I passed a sound through the opening several inches, and felt its point on the abdominal surface. After sterilising the skin I opened the abdomen and examined, but not a trace of an injury could be seen. I then knew I must have passed the dilators through the uterine side and between the layers of the broad ligament. On tying off the ovarian artery and opening up the ligament I found my surmise was correct, so I amputated the uterus at the line of the tear and completed the operation in the usual manner. I have seen the uterus perforated by a dilator on two occasions, and the treatment adopted,

in my opinion, was correct in such instances, that is, to get at the organ and sew up the tear, but in my case this course was impossible; and had I not performed hysterectomy the patient would have certainly developed an abscess in the broad ligament and would have had, if she had had the good fortune to get well, a long and tedious illness. As it was, the patient made an uninterrupted recovery.

As an instance of a mistake I made, and which shows that even when an abdomen is open how errors in diagnosis can creep in, I mention the following:—A woman had had, some months previous to consulting me, an Alexander Adams operation done for retroversion, but was not relieved of any of her symptoms. Her medical attendant had told her that the uterus had slipped back again, and on examining her I found it had done so. She agreed to have ventro-suspension performed, but urged me, unless it was an absolute necessity, not to remove either ovary; one had seemed large when I examined her. At the operation I found the uterus, as I thought, both retroverted and flexed, and one ovary enlarged and suspicious. I finished the suspension without doing anything else. Some three months after she came complaining of the same symptoms, pain in the side, dragging, back-ache, and all the usual accompaniments. Although the uterus was apparently in position, yet it could be felt in the cul-de-sac, and the previously suspicious ovary was now large and painful. This time she gave me permission to do as I liked, for she wanted to be well. On opening the abdomen for the second time I found an enlarged and cystic ovary, which I removed, and at the back of the uterus a fibroid about the size of a small mandarin orange. This was evidently the cause of her retroversion, and it was easily shelled out and the cut edges sewn over. She has since been relieved of all her symptoms. I cannot explain how it was I missed the tumour the first time, and I confess my error in the hope that the knowledge that a fibroid may be confounded with a retroversion will prevent a similar mistake being made by others.

One case of oöphorectomy was interesting, for the reason that the pain complained of was on the opposite side to the lesion.

In one case, after removal of both ovaries and tubes for pyosalpinx from a woman of 34 years of age, menstruation was absent for

six months, and the patient had all the symptoms of the menopause. At the end of that time the menses became re-established, and have lasted regularly ever since, now a period of twelve months.

In one case of subtotal hysterectomy, menstruation has continued at irregular intervals. The latter case may be explained by the theory that some portion of the endometrium may have been left behind, but it is difficult to account for the former one. The condition, however, is not uncommon, for this is the third case I have seen, and many cases of the kind have been reported.

As a rule, operations for the removal of an unruptured tubal gestation are simple and devoid of interest, but the following does not fall into that category. A patient who was sent to me by Dr. Malaher, of Nambour, had been ill for some three months, suffering from irregular menstruation, slight floodings, and it was supposed that she had had a miscarriage. On examination, I found a tumour in right fornix, extending as far as the back of the uterus. I kept her in bed for a few days, and found that her temperature curve varied between 99·6 and 100·4. I had arranged to open the abdomen in a few days, but one morning early she had a sudden pain, the temperature went up to 101·4, and the pulse rate to 128. Within an hour I operated and found the tumour buried in a mass of bowel adhesion, and consisting of the right tube, containing a two months' pregnancy. The appendix was enlarged, thickened, and buried in the mass, the bowel kinked in two places, the surfaces joined by decomposed and dirty-looking lymph, which extended over the whole right pelvis. The appendix and gestation sac was removed, the bowel freed from its adhesions and straightened, the adhering lymph wiped and cut off as far as possible, and where the bowel wall was thinned a few stitches were inserted. A large raw surface was left over the posterior part of the uterus, which was covered with omentum and the abdomen closed without drainage. Evidently the gestation was comparatively old, and local peritonitis had been present for some time.

The case of rupture of intestine was as follows:—A man, whilst driving, collided with another vehicle, and the shaft perforated his abdomen just above Poupart's ligament on the right side. Intestine at once protruded, which was pushed back by handkerchiefs at the moment, and he was removed

to a private hospital, where he was at once etherised by Dr. Wilson. On examination there was found a ragged wound, bruised and torn, into which a fist could be inserted. The intestine, which protruded, was torn, and at once was sewn over with Lembert's suture, and I pulled down another couple of feet and sewed up some smaller tears. The wound was cleaned and made as aseptic as possible, and the worst that occurred was a small abscess beneath the skin, which left a troublesome sinus, but which healed in about three months.

Although the following case does not belong to this series, it is instructive and worth relating. A patient was operated on about three years ago for procidentia uteri, the perinæum being repaired, the cervix amputated at the level of the internal os, and a ventro-suspension performed. The result was excellent. Three months later she became pregnant, and five months later she consulted me. I was puzzled as to the best course to pursue, for I was fearful that if I allowed her to go on to full time the scar tissue would give way during parturition, and rupture of the uterus would take place. After a few days' consideration I advised labour to be induced at once, but she would not consent at the time. Three months later she consented, and I brought on a miscarriage. Labour seemed to progress naturally, but when the foetus came through the os she complained of severe pain, and I feared rupture had occurred. I examined carefully, but failed to discover any lesion, and for two days thought my fears were groundless. On the third day she developed septic peritonitis, and on examining with speculum and sound I found a small tear extending up the side of the uterus and into the peritoneal cavity. It is easy to be wise after the event. The course I should adopt in a similar case in the future would be this: I should allow the patient to go on to the full time, and then perform Cæsarean section. The books are full of descriptions of how to do an amputation of the cervix, but all are silent as to the course to be pursued in case of pregnancy occurring afterwards.

The appendix was removed between the attacks, and no operation was undertaken during the acute stage, except when an abscess had formed, and then it was simply opened and drained. The practice advocated by some surgeons, of operating during acute attack, not only of what is called

fulminating or perforative appendicitis, but in almost every case, is, in my opinion, bad practice and bad surgery.

In 30 years general practice I have not seen any of those cases in which death occurs within say 48 hours from gangrenous or perforative appendicitis. I do not say that such cases do not occur, but they must be rare. On the other hand, I know of several cases operated upon during the acute stage with a fatal result. If an abscess is in process of development or only commencing, the peritoneum may be trusted to wall it off and it can be opened later on with safety, and if an abscess does not form the appendix can be removed when the attack is over.

I fancy that more fatal results have occurred through performing appendectomy during the acute stage than have ever happened through perforative or gangrenous appendicitis *per se*.

As you will have remarked, no fatalities occurred from septic troubles, and it may be worth while spending a few moments while I mention a few details of the care taken to prevent the occurrence of such a misfortune. Regarding myself, I never touch pus or anything likely to contaminate my hands without wearing gloves. For a clean abdominal case I always work with bare hands, but if I have to do any vaginal work prior to opening the abdomen, I always wear gloves for the preliminary part. I have seen some surgeons adopt the opposite principle, wearing gloves for clean work and bare hands for the infectious, which seems to me to be quite wrong; others wear gloves for all work, which may possibly be safer, but personally I never feel absolutely comfortable when doing a difficult abdominal operation when cumbered with gloves. In pus cases, if one's hands become infected, one never knows when they will be clean again, even with all the washing and chemical antiseptics one may use. I always change into a complete sterilised suit, shirt, trousers, shoes and cap, before entering the operating room. I trust far more to washing one's hands with soap and sterile water, changed two or three times during the washing, than to any chemical antiseptics, though I always prior to beginning operating, as a final safeguard, rinse freely in a 1-2000 biniodide in spirit solution, washing it off with sterile water.

The nurses always get ample time to sterilise their hands in the same way, and

unless they have a separate room to do this necessary preparation in, they are very often tempted to hurry over the process and to neglect perfect asepsis. Sterilised basins, sterilised nail-brushes and towels are rigorously insisted on. The nurses also remove all their outer garments, wear a sterilised operating gown, and a cap which covers all their hair, and also take the same precautions regarding pus cases as I do myself.

The catheter is passed in every instance prior to the patients being brought into the operating room. Subcutaneous injection of 1-200 gr. of atropine is given at the same time that the catheter is passed, and $\frac{1}{4}$ gr. of salicylate of eserine immediately after operation. After an extended trial of this treatment I am inclined to think there is less trouble with the bowels than formerly. An enema on the morning following the operation usually acts well.

I always tie the uterine and ovarian arteries with linen thread. Silk I have long since discarded, and I have seen fatal hæmorrhage occur after ligaturing those comparatively large vessels with catgut. I have never seen any trouble arise from linen ligatures in the abdominal cavity.

In performing suspensions or fixations of the uterus I use catgut for the peritoneal surface, and then insert a silkworm gut stitch through skin, fascia, muscle, and uterus, which is removed on the tenth day. I had so much after trouble with buried linen sutures, through the uterus and peritoneum, that I have given up the practice. I always tie bleeding points as I go along. If one puts on pressure forceps and leaves them to the last there is the danger that hæmorrhage may be checked for the time and break out when the wound is closed. Besides, a number of forceps are always in the way, and confusion arises later on as to which are on bleeding points and which on something else, and I must say if bleeding is going to occur I like to see it, and not to cover it up.

In performing hysterectomy, I cut the uterine artery, and when it spurts it is caught in forceps and ligatured with linen. The practice of tying up a large lump of tissue, including the artery, I look on with apprehension, as the ureter is so likely to be included.

The preparation of the patient has to be entrusted to the nurse. Miss Appleton,

matron of the Lady Lamington Hospital, after an extended experience of preparation, has furnished the following instructions regarding the preparation of patients and sutures, which of late years I have always adopted. On the night previous to operation, which usually takes place at 8.30 the following morning, the patient is shaved and has a warm bath. Two hours previous to operation the nurse in charge of the operating room sterilises her hands, puts on a sterilised gown, and, with sterile water in a boiled basin, scrubs the abdomen with a sterilised gauze sponge and ethereal soap for three minutes. The operation area is then washed with ether and again scrubbed with another sterilised gauze sponge, ethereal soap and sterile water for three minutes. Then it is washed over with rectified spirit, and a pad of sterilised gauze soaked in 1-1000 biniodide in water is applied, and a sterilised binder pinned over to keep the pad in place. When on the table, one of the nurses removes binder and pad, and immediately before making the incision the area is washed over with the biniodide solution and washed off with spirit. Nail-brushes for preparing the abdomen have been discarded, as it was found that the skin epithelium was in some instances rubbed off, and a dermatitis resulted from too vigorous rubbing.

In all cases the vagina is prepared, as one never knows when it may be entered from above. It is douched with 1-4000 corrosive solution, scrubbed with a gauze swab wet with ethereal soap and sterilised water, again irrigated and dried with a sterile swab.

Catgut ligatures are prepared as follows: It is presumed that hands, jars, and water will be first absolutely sterilised, then the gut is washed in soap and water, soaked in ether for twenty-four hours, then placed in another jar of ether for twenty-four hours, after which it is stored in biniodide and spirit for a fortnight, when it is ready for use. Gut prepared in this manner is very satisfactory, and will keep for months.

Just before an operation the gut is taken from the biniodide solution and soaked in pure spirit. Kangaroo tendon is prepared in the same manner, but requires a longer time to render it safe. Linen and silkworm gut are boiled for two hours and stored in rectified spirit. Gauze sponges are used exclusively and are made in two sizes—large

flat ones for use in the abdominal cavity, and smaller round ones for swabbing. The larger sizes have 12 inches of tape attached, so that loss in the cavity is improbable. I find that for ordinary operation six small sponges and two large ones are ample, so that this number is sterilised and kept in glass jars, labelled and signed by the nurse who prepares them. The sterilisation is carried out as follows:—The sponges are counted and placed in the jar unstoppered; jar, sponges and stopper are placed in a special steriliser made for the purpose, and boiled for two hours, after which the water from the jar is poured away and replaced by a sterilised carbolic solution, 1-80, and sealed up. You will remark that the sponges are not touched by the hands from the moment they are first placed in the jar. No more and no less are stored in each jar, so that counting at the end of the operation is easy and no mistakes can occur. The practice of using dabs, *i.e.*, small pieces of gauze unmade and of various sizes, for swabbing the external wound, needs only to be mentioned to be condemned.

All instruments, including scissors and knives, are boiled; the cutting instruments require sharpening fairly often, but this is a minor matter for the assurance of perfect safety, and of course all instruments are counted. The abdominal wound is closed in layers with catgut, and sustaining sutures of silkworm gut passed through the skin and fascia, the wound covered with dry sterile gauze, which is not touched till the eighth day, when the silkworm gut stitches are removed.

The abdominal cavity is never flushed out, dry swabs are used to clear away any soiling, and drains are seldom or never employed. Without perfect asepsis great success in surgical work is impossible, and to gain this one has to depend on the operating room nursing staff. My thanks are therefore especially due to Miss Appleton, the matron of the Lamington Hospital, for the care and attention bestowed on minute detail, to render our work in that hospital perfectly aseptic. My thanks also are due to Drs. Bancroft, Hardie, and Love for valuable assistance and advice rendered at many of the operations, and to Dr. Wilson for his care and skill in administering the anæsthetic.

(Read before the Queensland Branch of the British Medical Association.)

A CASE OF PERFORATED DUODENAL ULCER.

By R. Humphrey Marten, M.D. (Cantab.), B.C.,
M.R.C.S., L.R.C.P. (Lond.), Adelaide, S.A.

RECORDED cases of perforation of duodenal ulcers are rare, but we know more about them of late years, owing to the immediate performance of a laparotomy when certain well-defined symptoms indicate the rupture or serious lesion of some important internal organ. For convenience, ruptured duodenal ulcers may be divided into two great classes—the intraperitoneal, of which my case is an example, and the extraperitoneal, which leads, as a rule, to a sub-diaphragmatic abscess.

The history is as follows:—Mr. P., aged 23½, was brought to my house at 1.15 p.m. on November 16th, 1906, complaining of intense abdominal pain, which commenced below the right rib cartilages and spread downwards to the right groin. The patient was a good deal collapsed, covered with a cold sweat, and had a feeble, easily compressible pulse. His previous history and family history were good. He had been married only three days.

Present illness.—For several weeks past he has felt a pain on the right side of the umbilicus, coming on worse a few hours (three to four) after taking food, but always relieved within a few minutes by the ingestion of solid or liquid nourishment into his stomach. He had only vomited once, and that was on the morning of his sudden illness, and had never in his life suffered from either hæmatemesis or melaena. He attended a sale during the morning of his attack, and at 12.35 p.m. suddenly felt an acute tearing pain in the upper part of his abdomen, describing it as though some one were tying all his intestines into a tight knot and then suddenly relaxing them again. He did not at the time faint, but was obliged to lie down on his abdomen across some packing cases, and then he felt that all his abdominal organs were perfectly immobile. He was still able to stand up and bid for a case of goods he wanted, and left the sale room for my house in a cab at 1.5 p.m.

Present state.—Looks very ill; has a grey, ashy, pinched appearance; lies on his back with his legs flat on the couch—*i.e.*, not drawn up, and frequently calls out with intense abdominal pain. His pulse was 88, regular, soft and easily compressible. His breathing was upper thoracic. His abdomen

was retracted, and his abdominal muscles were board-like and immobile.

I immediately gave him a hypodermic injection of 1-40 gr. of strychnia. My diagnosis was rupture of a gastric or duodenal ulcer, the former for preference owing to the age of the patient. Dr. J. C. Verco saw him within a few minutes and agreed with my diagnosis, and also elicited the fact that his liver dulness was greatly diminished, a symptom I had neglected to determine. An ambulance was obtained, and the patient sent to the private hospital with a view to immediate operation; and as we had made our diagnosis and arranged for the treatment we felt at liberty to administer a large dose of morphia hypodermically.

At 3.45 p.m., that is, three hours and ten minutes after his illness began, with the assistance of Dr. Cudmore (Dr. G. C. Hayward having given him ether), I proceeded to open the abdomen. Owing to the seat of the greatest pain and tenderness having concentrated themselves over the region of the appendix just before the patient went under the anæsthetic, the first incision was made over the usual appendix situation, and upon opening the peritoneum, air and bile-stained fluid immediately escaped. Gauze was laid over this incision and a four-inch opening was made over the right rectus, half the incision being above and half below the level of the umbilicus. On opening the peritoneum the same bile-stained fluid and air escaped, the stomach was pulled up and a small, round, clearly cut opening was found on the anterior surface of the duodenum, about one inch below the pylorus. It was large enough to admit a No. 8 English catheter, and from it bile-stained fluid was seen to be escaping. It was closed by two fine silk sutures, and a purse-string suture was applied for further safety, and a small piece of fatty omentum which was close by was sutured over all. All the escaped bowel contents which were free in the peritoneal cavity and within reach were mopped up with dry sterilised gauze, and the wound closed in the ordinary way. An opening large enough to take a drainage tube $\frac{3}{4}$ in. in diameter was made in each loin, as far back as seemed possible, and another opening midway between the umbilicus and the pubes was made in the middle line. Into these openings alternately large quantities of normal, sterilised salt solution was poured, and then the original incision over the appendix was closed and large tubes put into

the lumbar openings, and a large tube with a gauze wick was carried down to the bottom of the pelvis, the case being dressed with the ordinary dry sterilised gauze dressing. The patient stood the operation very well—in fact, the shock improved as soon as the abdomen was opened, a condition I have previously noted in opening the abdomen in cases of perforated internal organs. The patient on returning to bed was at once placed in Fowler's position, and the head of the bed was also raised. The patient passed a good night, and his abdomen was only slightly distended and moved well on respiration. The lumbar drainage tubes had only discharged a small amount of blood-stained fluid, and as their position had so altered from where they were originally intended to be, they were removed. The pelvic tube was draining well and was allowed to remain in for two more days. The patient made a rapid and uninterrupted recovery, and was allowed to leave for home within three weeks with all his wounds healed, and has enjoyed perfect health since.

This case helps to prove that the danger in perforation of any of the abdominal viscera is due to delay in operating. Perhaps my time could have been somewhat shortened, but still the interval elapsing, *i.e.*, three hours and ten minutes, is three-quarters of an hour shorter than any case so far recorded by Moynihan. It stands to reason that the earlier you open the abdomen the less you will have to attend to the peritoneum, as it has been shown by C. J. Bond and others that the contents of the upper alimentary tract are as a rule sterile. And Bond says that the "seriousness of the patient's condition lies partly in the escape of foreign particles and digestive juices which injure the endothelium and partly on the rapid pouring out of the material over the peritoneal cavity," and he adds that "in no form of peritonitis is the life-saving and disease-arresting power of immediate operation so manifest."

You must allow time for preparing the skin over the whole surface of the abdomen or else you will be introducing from without worse organisms than have entered from within. In such emergency operations you cannot do better than clean with the alkaline green soap, and then apply the sulphide of barium paste liberally all over the surface which is likely to come within the field of operation in these cases all over the front and sides of the abdomen. The barium paste not

only removes all hairs better and less painfully than shaving, but also takes off the superficial layers of the epidermis and gets down into the hair follicles and sweat glands, and renders them aseptic, which is most important when time will not allow for the ordinary antiseptic fomentations for some hours before the operation.

The similarity of the symptoms of perforated duodenal ulcer and appendicitis is well shown in this case. Although the original diagnosis was a perforation of the stomach or duodenum, by the time the patient was ready for the anæsthetic everything pointed to the appendix region as being the best to start from; and Moynihan says that out of 51 cases of perforated duodenal ulcer, in only two cases was a correct diagnosis made, and that no fewer than 18 cases of duodenal ulcer were operated upon for appendicitis. This is accounted for by the fact that the escaped contents follow down along Wallace's right "peritoneal watershed," and cross the descending colon or cæcum into the pelvis.

With regard to the "toilet" of the peritoneum, I think I was too lavish with my drainage and the lavage of the cavity; especially as pointed out previously the first organisms to escape are the mild staphylococci albi, which give rise to increased phagocytosis and to a certain extent prepare the peritoneum against the invasion of the more virulent germs.

I used the sterile salt solution, as I was unable, owing to the extensive diffusion of the escaped duodenal contents, to mop up the general peritoneal cavity, as I have done in my last two cases of perforated gastric ulcer, and immediately close the wounds without any drainage. If another case of ruptured duodenal ulcer falls to my lot, and I am able to operate within six or eight hours, I shall be content with dry gauze mopping, and perhaps a pelvic wick drain, but no lumbar drainage. In fact, the pelvic drain with Fowler's position appears to be all that is required—that is, if drainage is necessary at all.

There are a few more points of interest in this case I should like to draw attention to. In the first place the age of the patient, 23½, and a male. As a rule gastric ulcers occur in young females and duodenal ulcers in males over 40 years of age; and Smith, in a report on 14 consecutive cases of duodenal ulcer operated upon at St. Mary's Hospital, London, shows there were 12 in male and 2 in female patients, and their average age was 40.

Another point which appears to me to be of diagnostic importance is that in all cases of perforations occurring in the upper abdomen in my practice the legs have been kept straight down on the bed in contra-distinction to the well-known drawing up in lesions of the pelvis and lower abdomen. This is only in the early stages, as when well marked general peritonitis has supervened the knees at once go up to relax the abdomen.

And, finally, I am quite sure that the shock of the perforation undergoes immediate alleviation upon opening the abdominal cavity, and the patients are (if operated upon early enough) in a much better condition on leaving the table than when placed thereon. This is another strong argument for early operation if such an one should nowadays be necessary.

(Read before the South Australian Branch of the British Medical Association.)

DUODENAL ULCER, WITH THREE CASES OF PERFORATION.

By C. E. Todd, M.D. (Brux.), L.R.C.P. (Lond.),
M.R.C.S. (Eng.), Adelaide, S.A.

I HAVE a very strong impression that duodenal ulcer is not so uncommon as we usually suppose. I think this for a good many reasons. First, because one sees in one's consulting-room a fair number of cases whose symptoms correspond very exactly to those which are elicited from patients who have been operated on for ruptured ulcer. Secondly, it is no uncommon experience to find, during an abdominal section, numerous omental and peritoneal adhesions round about the duodenum; and, thirdly, there are in the London and other pathological museums numerous specimens showing the duodenum studded with cicatrices of old ulcers which must have been breaking down and healing up over a period of years.

The subjects of duodenal ulcer are, I think, almost invariably men. I never remember meeting with a case whose symptoms I thought typical in a woman. The three cases of ruptured ulcer which I shall record were all men, and they were, as is usual I think, in the most active period of life. None of them had suffered any special pain or great discomfort before their ulcers gave way, and this seems to have been the case in most ulcers which have gone on to the point of perforating. Doubtless, duodenal ulcers often go on for years without rupturing, and

they cause gradually increasing illness. They begin in the middle period of adult life, and they are extremely difficult, often impossible, to diagnose. The symptoms are pain in the epigastrium, coming on about an hour and a-half after meals and lasting up to the time of the next meal, when it eases off for an hour or two. The subject is generally a thin, active, nervous man, and he is liable to get from some error of diet, very acute attacks of stomach pain, attended with vomiting, localised tenderness below and to the right of his ensiform cartilage, and abdominal distension with constipation. Unless he vomits blood or passes it by the bowel the diagnosis of his condition ranges all the way from a bad bilious attack to renal or biliary colic or appendicitis. If he has hæmatemesis and malæna the diagnosis can be generally made with tolerable certainty, having regard to the difference in symptoms between gastric and duodenal ulcer. If such a case as this, having chronic pain and occasional acute attacks, is allowed to go on, one of three things happens—either the ulcer ruptures, when the patient if not speedily operated on develops septic peritonitis and quickly dies, or he gets a subphrenic abscess (this depends partly upon the size of the rupture and partly upon the position of the original ulcer.) If the stomach contents escape slowly it is quite possible that limiting adhesions may form, and an abscess result; this is most likely to happen if the rupture is in a part of the duodenum not completely surrounded by peritoneum. If, as is usual, the bowel gives way suddenly shortly after a meal, the hole is generally large enough to let loose a large quantity of food, and acute septic peritonitis is sure to result. Occasionally, more often I think than we generally believe, duodenal ulcers heal completely. I have notes of a good many cases which I diagnosed as ulcers, which after years of suffering are now comparatively well. They are liable to relapse, it is true—after many months or even years. These relapses, I think, come on often amid the best of health and with normal digestion. After some error in diet or other cause the patient will be seized with all the old symptoms pointing to duodenal ulcer, and for weeks or months everything he eats will be followed by the typical pain.

But duodenal ulcer which has existed any length of time, or which has recurred, does not often end in this even limited recovery; more often the cicatrices contract, diminish-

ing the lumen of the bowel; the consequence is that the stomach becomes dilated, adhesions form between the duodenum and the gall-bladder, pancreas, liver, transverse colon, great omentum—thus is brought about a condition of sequelæ from which recovery is quite impossible, except by a gastro-jejunostomy. The patient wastes from constant pain and vomiting, a tumour appears in the region of the pylorus, and I have no doubt that many people die of these complications and are thought to have malignant disease of the pylorus. This furnishes another argument in favour of an exploratory abdominal section in every case in which the pain in the stomach and obstinate vomiting have resisted medical treatment.

The proportion of cases of duodenal ulcer which perforate has been variously stated by different authors. It must be difficult to gauge. Mayo Robson puts it down at 10 per cent., Dr. Fenwick at 53·5 per cent., Collin at 69 per cent. I should think that Mayo Robson's estimate was very near the mark. I saw in London museums a large number of healed duodenal ulcers, but only a small number of perforated. The site of rupture is most frequently the first part of the duodenum, which is in reality a portion of the stomach itself. Collin had 119 cases of perforation in the first part, 8 in the second part, and 4 in the third part.

The three cases that I record were all in the first part, and all of them on the back wall, so that they were difficult to expose; they could only be brought into view by putting the duodenum on the stretch by traction on the pyloric end of the stomach and turning it over to the left. All three ulcers had the same appearance and were about the same size—that of a split pea; they had bevelled, thin margins, and were almost round.

Cases.—The first example of ruptured duodenal ulcer which came under my notice occurred many years ago, before I knew anything about gastric surgery, and before it was the surgical rule to explore the abdomen in cases of acute abdominal pain and distension unrelieved by medical means. The patient was an active man, aged 40, a coachman. He came home late, left his carriage standing in the yard while he had a hurried tea; after the meal he pushed the trap into the coachhouse by applying the pole to his abdomen. Shortly afterwards he felt pain in his stomach and retched; but he groomed his horses. During the night he had agonising pain in his abdo-

men, which began to swell. When I saw him early in the morning I thought he had most likely gallstones. He rapidly got peritonitis, and died on the fifth day. At the post-mortem a small perforation was found in the back of the first part of his duodenum; over this a thick piece of omentum was loosely plastered. This man had suffered only from occasional attacks of rather mild dyspepsia, but I found he had been subject to attacks of what was called dysentery, during which he would pass considerable quantities of black blood from his bowel. He had not been off work, however, for years.

The second case was very much like the first, but it had a different ending. W.S., *æt.* 30, an abstemious man working in a brewery, was seized some time after a meal while at work with an acute abdominal pain. He was given an emetic, which made him retch, but he brought nothing up. Dr. A. A. Hamilton sent him into the hospital with a diagnosis of ruptured gastric or duodenal ulcer. When I saw him he had slight abdominal distension, but his muscles moved with respiration; his abdomen was everywhere tender, but only acutely so below and to the right of his ensiform cartilage, where his right rectus was stiff. His liver dulness was abolished. He was at once submitted to abdominal section six hours after the first onset of his symptoms. On opening the peritoneum there was a gush of air and some straw-coloured fluid. Food at once presented in the wound; tracing the stomach to the right I found food in greater abundance, and pulling up the pylorus and putting the first part of the duodenum on the stretch I found the small perforated ulcer on its posterior wall. From this food was being extruded in great quantity. I at first tried to bring the edges of the ulcer together, but owing to the tension necessary to keep it in view, and also to the fact that the surrounding duodenum was cicatricial, the silk stitches tore out, so I was obliged to approximate the surface of the bowel with mattress stitches, and sewed a piece of omentum over the whole. The duodenum in its first part was so contracted that it appeared desirable that a gastro-jejunosotomy should be done; however, as there was much food to be got out, especially in the right kidney pouch, I thought it best to delay this to another occasion. I cleared out as much food as I could with my hand, gently sponging off some particles here and there from the intestines, put a back rain into the right kidney pouch with a

gauze wick, which I pulled up from the front as near the rupture as possible, and then closed the anterior wound in layers. The man made an uninterrupted recovery and is now not the least troubled with any digestive symptoms. I showed him to this Society shortly before I left for England. He is so well that the question of gastro-enterostomy has never been mooted. This man's symptoms were only preceded by occasional attacks of mild dyspepsia.

The third case was a man working as a navvy at the outer harbour. He came to town and drank many pints of beer; during the night he had acute abdominal pain, but he lay all the next day without advice. About the middle of the morning following Dr. Newland saw him and sent him into hospital. I operated about 30 hours after the onset of his acute symptoms. His pulse was then bad and his temperature 100°, and he had great abdominal distension. Air and abundant fluid escaped on opening the peritoneum. I found an open ulcer in the first part of his duodenum, difficult, as the others were, to keep in view. I easily brought the edges together by a continuous stitch, putting in Lambert's interrupted sutures and a piece of omentum over the whole. As this man had abundance of infected fluid in his abdomen I washed him out with gallons of hot saline solution, finally putting in a drain over his pubes and one in his right kidney pouch; this latter was unnecessary, as nothing came out of it, but the pubic one drained freely. The man was sat up in bed, but died of exhaustion on the fifth day. This case improved so much after the operation that I could not help hoping that he might recover.

These two cases bring very clearly into view the desirability of operating early. Cases operated on less than 12 hours after rupture should show a very low mortality. Mayo Robson mentions 155 cases, of which 52 recovered and 103 died—a mortality of 61 per cent.; 61 were operated on within 24 hours after rupture, with 38 recoveries and 23 deaths—a mortality of 37·7 per cent.; whereas of 63 cases operated on after 24 hours there were 11 recoveries and 52 deaths—a mortality of 82·5 per cent. The remaining 31 cases, time of operation not stated, the mortality was 90·3 per cent.

I expect that as these cases are earlier recognised and earlier submitted to operation the records in the future will be very much more favourable.

A CASE OF SUDDEN DEATH.

By E. L. Borthwick, M.B., Adelaide, S.A.

H.H., male, aged 26 years, was examined by me about two years ago. I certified that he was in good health and a fit and proper person to become a member of a lodge. During the last 12 months he had been under my care for hæmoptysis. The blood was examined for tubercle bacilli and hydatids with negative results. Once or twice he complained of pain over the region of the stomach, which was increased on pressure. I received a message to go at once to see this patient at 2 a.m., January 1st, 1907, who, I was informed, was suffering severe pain, and calling out so loudly as to wake the people in the next house. On my arrival I found H.H. in bed in a violent convulsion with two men holding him. It lasted about half a minute and then relaxation of the muscles took place. I asked the patient what was the matter, and he replied, "Oh, doctor, I have been poisoned with a meat pie I bought in town." A cart passed in the street and he immediately went into another convulsion, violent, and lasting about one minute. During relaxation of the muscles he was trembling and bathed in perspiration, and seemed to be in great fear and anxiety. When in convulsions the muscles of the abdomen were as hard as a board, the legs were wide apart and stiff, the hands were clenched. The muscles of the lower jaw were not affected at first, and he could articulate during a convulsion. The head was thrown back, and the muscles of the back and the back of the neck were contracted. The pupils during the spasms were widely dilated, but normal when the muscles were relaxed. The eyes were staring and the eyeballs protruded. The breathing was quick and gasping. The pulse was so rapid during the spasm as to be uncountable. The temperature was 99.3°. Thirst was intense, and he kept asking for water, and also that I should help to relieve him of the awful pain. When the muscles were relaxed he complained "of a frightful pain in the lower part of the back." I asked him three or four times if he had taken anything else which might cause his illness, and his reply each time was, "No; I had a meat pie, missed the last car to Payneham, walked home, fell down in the Park lands, was sick, got up and struggled home somehow." I understand he reached home about 1 a.m., trembling and shivering, and shortly after-

wards had convulsions. More than once he asked me to help him to keep his eyes open "and then the fits will not come on, but, oh! do not touch me or they will come on." He also asked me frequently, "Will I live?" When the convulsions were just about to come on he asked me to hold him and press hard on his stomach.

I saw about eight or ten such convulsions, each of which lasted about one to two minutes, with about the same period of complete relaxation of the muscles. The last two convulsions were violent, in which he was resting on the back of his head and his heels. During the final convulsion the chest wall was fixed and the muscles of the face and lower jaw were strongly contracted, presenting the appearance "risus sardonicus." The face became livid, respiration ceased, but the pulse continued to beat for some little time afterwards. He died at 2.40 a.m. I refused to certify the cause of death because I believe that death was due to strychnia poisoning.

I was present at a post-mortem examination on the exhumed body, which had been interred for ten days. All the organs were in a satisfactory state for examination, except the brain, which was in an advanced stage of putrefaction. There was a large post-mortem digestion perforation on the anterior surface of the stomach. Nothing was found to account for death. The several internal organs were put in separate glass jars, which were not sealed in my presence, and taken by the medical man who performed the post mortem examination, to be delivered to the analyst on the following day. No strychnia was found. An alkaloid was isolated, which the analyst said may have been due to post-mortem changes in the body.

From the foregoing notes it would appear that strychnia poisoning might be simulated by some other poison or form of disease. The history of the case leads one to think of ptomaine poisoning, and although convulsions have been ascribed to certain ptomaines, I am not aware of their assuming the character of the symptoms just described. Convulsions may be also caused by other diseases, injuries, or poison. Among others may be mentioned tetanus, hydrophobia, cerebrospinal meningitis, injuries to the brain, and morphia. I have found no literature on these diseases, etc., which describes such symptoms as I have enumerated.

(Read before the South Australian Branch of the British Medical Association.)

LATENT TUBERCULOSIS OF THE TONSILS AND PHARYNGEAL ADENOID TISSUE.

By Baxter Tyrie, Brisbane.

THE first authority to direct attention to this interesting condition was Virchow. Discussing a case in 1863, he wrote: "It is difficult to understand why tuberculosis of the tonsils and follicular tissue at the base of the tongue has not been observed before. Perhaps it has been for want of observation." While recognising its occurrence, he thought it must be a rare condition in view of the then accepted opinion that these organs were practically immune to tubercular infection.

Subsequent observations have negated this opinion of Virchow, and its existence for so long was due to investigations having only in view the ordinary manifestations of tuberculosis on mucous membrane which is characterised by ulceration and therefore readily recognised by simple inspection.

The recognition of the latent form is, however, of recent date, and is closely associated with the also recent elevation of tonsillar hypertrophies to a position in medicine worthy of more than mere passing interest. Before adventuring upon the subject proper of this paper, it would be well to review briefly the various theories which have held the field concerning the causes and nature of tonsillar hypertrophies.

Dealing first with the tonsils proper, for a long period their enlargement was regarded as the result of a simple inflammatory process, identical in all cases, and due in perhaps a few cases to individual predisposition. Interest was next aroused in the condition by the brilliant paper of Meyer on hypertrophy of the pharyngeal tonsil of Luschka, otherwise known as adenoid vegetations. It was often observed in association with the similar tonsillar condition, and was regarded as of the same trivial importance. Meyer himself was at first unaware of all that his discovery embraced. He did not surmise that the symptomatology might be the expression of pathological processes very dissimilar and having by no means a common etiology.

The presence of adenoid vegetations was placed on a par with tonsillar hypertrophy, as the products of a simple inflammatory action, benign in character, and fraught with no danger to the general health. A simple operation sufficed to effect a complete and permanent cure.

Stoke and Waldeyer next established the presence of an almost complete ring of

adenoid tissue round the pharyngeal aperture, and demonstrated that almost invariably when enlargement was present it affected the whole of the adenoid ring. They directed attention to the fact that the condition known as scrofulous was often associated with enlarged tonsils and adenoids. They were inclined to regard the pharyngeal condition as a pure tubercular indication. This theory was soon exploded when it was recognised that the so-called constitutional tubercular manifestations completely disappeared when the adenoids were removed.

Hauseman next appeared in the field with his theory of lymphatism, which he regarded as the forerunner of tuberculosis, and tried to establish the sequence of the maladies. This view, however, obtained little ground, as it was open to the same objection as the preceding, viz., the difficulty of explaining how an affection so prevalent as adenoid enlargements could be the result of a constitutional disease in all cases. Meanwhile the closer study of local tubercular lesions had proved that numerous pathological manifestations hitherto considered as characteristic of scrofula were pure tubercular lesions, more or less advanced.

The enlarged glands so often observed in anæmic children, and which so often disappear under appropriate treatment without ulterior results, local or general, were proved to be undoubtedly tubercular, and it was in connection with this discovery that the term latent tuberculosis was first employed.

The researches of Woodbeach, Baumgarten and Brownell have demonstrated how common the condition is; they found it in 40 to 50 per cent. of their post-mortems, and the frequency of its occurrence has been estimated as 1 in 3.

In view of these statistics is it not reasonable to enquire if hypertrophy of the adenoid tissue of the pharynx and naso-pharynx is not a manifestation of the presence of latent tuberculosis? This hypothesis has served as the groundwork for a mass of research which has in a large measure proved the truth of the supposition. The investigations have also thrown much light on the relations between tonsillar, pulmonary and glandular tuberculosis, on the part played by Koch's bacillus in tonsillar enlargement and on the mode of infection of these glands. It is to Shassman that the credit is due of having first recognised latent tuberculosis of the palatine tonsils. He found in 21 tonsils removed from 15 post-mortems on con-

sumptives that 13 tonsils were affected with latent tuberculosis.

Schlessiger published in 1896 a record of post-mortems on 17 tubercular children, varying from seven months to 13 years. He found tubercular lesions in the tonsils in 12 cases, and expressed the following opinion: "Pulmonary phthisis is invariably accompanied by tubercular tonsils, and that latent tuberculosis of the tonsils is always associated with latent pulmonary mischief." He regarded the condition as always secondary to the lung infection, and emphasised the fact that the disease was purely latent and in no case could their infection have been diagnosed without microscopic examination.

Pilliet was the first to prove the presence of latent tuberculosis in adenoid vegetations, and his observations were speedily and emphatically confirmed by Bieulafoy, who inoculated 61 guinea-pigs with material from 35 tonsils and 35 with material from adenoids. Eight of the first series developed tuberculosis and seven of the second. The material was from apparently simple tonsilar and adenoid enlargements. There was no apparent tubercular lesion in any of the cases, yet, gentlemen, 13 per cent. of the tonsils and 7 per cent. of the adenoids must have been the habitat of the tubercular bacillus.

Objection was taken to his results on the ground that the tubercle bacillus has been found, and in some of his cases probably was, in the oral and nasal passages, but subsequent investigations have proved that not only were his results in accordance with fact, but that the percentage is very much higher.

How does the tubercular bacillus invade the tonsil? There are possible channels, the body fluids, and from the surface. If we grant the postulation of Schlessiger, that tonsillar infection is always secondary to a pulmonary or other focus, we could ignore the cutaneous source, but that is impossible, as in those very rare cases where the mischief is gross and characterised by superficial ulceration, it is almost invariably associated with and is secondary to tubercular ulceration of the respiratory tract or oral and nasal cavities. Therefore, while one recognises that latent tuberculosis is the result of circulatory infection, it must not be forgotten that a solution in continuity of the mucous membrane may in a few cases be the track.

Tuberculosis of the Tonsil and Tonsilar Hypertrophy.—It must not be thought that in all cases where the tonsil is invaded by the

tubercular bacillus that enlargement follows. Dieulafoy was of this opinion, but as will be pointed out later his conclusion was erroneous. Besides, if it were so, the term latent would not be applicable, as enlargement would be the first and most important sign of tubercular invasion. In not a few cases of tuberculosis of the tonsil the gland has been of normal size, and in rare cases even smaller than usual. Of 12 tonsils in which latent tuberculosis was proved, nine were enlarged and three of normal size.

It is well known that invasion by any organism of lymphoid tissue produces hypertrophy, which is acute and often leaves a chronic hypertrophy in its train. This, while claiming that all hypertrophies are not manifestations of tubercle, emphasises the increased suspicion with which we should regard those adenoids and tonsilar enlargements which have no (shall I say) respectable history.

Diagnosis, Prognosis and Treatment.—From the designation of the condition it will be evident that diagnosis is extremely difficult and often impossible. In the majority of the cases there are no other tubercular elements, save perhaps the youth, the family history, and absence of previous acute attacks, upon which to ground suspicion, and the diagnosis really depends on the subsequent examination of the lymphoid tissue removed. In cases where this is positive it is surely a great step to have been able to diagnose a tubercular focus in a patient hitherto unsuspected, and to advise after-treatment accordingly. As the vast proportion of the cases are children, the communication of the circumstances would not upset the equanimity of the patient, as no child would worry a jot as long as he had not to undergo a second interview with the surgeon. The prognosis is comparatively favourable. The localisation of latent tuberculosis in a tonsil or adenoids is assuredly the least harmful site. Secondary infection of the lungs and glands can only take place by the lymphatics, as latent tuberculosis of the tonsils never ulcerates, and therefore cannot affect the lungs by the respiratory tract. Latent tuberculosis and ulcerative tuberculosis are not a difference of degree, but a difference in nature, and, as I have previously stated, the channels of infection are distinct treatment. The treatment is not only surgical. Hypertrophied tonsils and adenoid vegetations ought to be removed,

and the facts which I have placed before you demonstrate the additional necessity of their extirpation. We are too apt to look upon their presence being inimical to the welfare of the child simply because their mechanical obstruction to breathing is fraught with respiratory and aural trouble; that their effects on the aëration of the blood retards mental and physical development; that they render the child more liable to diphtheria and kindred infections and prejudice his chance of recovery therefrom. It is essential to recognise that also in their interior in a great proportion of cases is a focus of disease which unless removed may become generalised. Further, to remember that a recognition of latent tuberculosis in tonsils or adenoids removed may determine a course of treatment which will fortify the patient against any other foe which he may have in his organism.

(Read before the Queensland Branch of the
British Medical Association.)

POST-GRADUATE WORK IN LONDON AND PARIS.

By C. L. Handcock, M.B., Ch.M., Newcastle.

It has been my privilege to spend the last few months of 1906 at post-graduate work in London and in Paris, and a few notes on this subject and on the latest advances in surgery may prove of interest to Australian practitioners.

In the first place, it seems strange that one meets so few Australian practitioners studying in these great cities, where the means of post-graduate study are so great and the wealth of clinical material is so vast. In the 17 hospitals which I attended in London there were but three men from the whole of Australia, while there were four from New Zealand, numbers from India, and the place simply swarmed with Americans. These last, while nominally disparaging everything done in London, crowd all the special hospitals there, especially Moorefields; some of them coming from places 2000 miles west of New York.

Owing to the vast number of hospitals in London and the long distances which separate some of them from each other, it is by no means easy for a stranger, with limited time at his disposal, to compile a programme of work, and to cater for him various post-graduate associations and courses have been formed. The largest of these is probably the

"London Post-graduate Association," which advertises extensively in the *B. M. Journal*. This Association has its headquarters on the Thames Embankment, and is apparently managed by a young lady, upon whom the post-graduate has to call. She duly scrutinises his credentials, and if satisfied will, on the receipt of ten guineas, present him with a ticket entitling him to attend the practice and lectures of nine general and five special hospitals, and also with a programme showing the hours at which the various honoraries attend these hospitals. This ten guineas is absolutely wasted, as the best general hospitals make a post-graduate extremely welcome without a fee, while the best special hospitals are mostly outside the ring. At one large hospital the spectators are allowed to sit in a gallery 15 feet above the theatre, from which it is shut off by a glass frame, so that a spectator has no chance of following what is taking place below. One visit usually suffices. The man who wants to learn is out of place there, and he strikes this item off the Association's menu card, and wishes that he had his ten guineas back.

The special departments of the big hospitals, carefully selected by the Association, are also useless, as the patients are so few. To see the best special work one must attend the special hospitals in each subject, and pay the fee of two or three guineas to each hospital for three months' attendance; for in London, with some bright exceptions, dog is most careful to eat dog, and on your second or third visit the secretary is down on you for the fee. In Paris, all is different. The visitor is welcome at every hospital and at every operation, and Paris's greatest surgeon will even ask you to assist at operations in his private hospital. But work in Paris begins at or before 9 a.m., and is over by noon; while in London one can put in the whole day at work, from 9 a.m. to 6 p.m., and a short stay in Paris demonstrates that Paris has nothing to teach London in surgery.

The visitor who desires general surgery in London should by all means attach himself to "Guy's," where he will receive a kindlier welcome than at any other hospital, and where he cannot fail to notice the *esprit de corps* which marks the men of Guy's. At no other hospital will he see the busy honorary surgeon stand by and instruct his senior students as *they* perform the operation. Nowhere else will he find the dressers, clerks, assistants and house surgeons invited to dine

at their honorary's house when their three months with him have expired. At Guy's they make the visitor one of themselves. Here one cannot fail to be charmed with the magnificent surgery of Mr. Golding Bird, his fatherly interest in his students, and the sound common sense which he drills into them. Here, one is impressed by the calm and quiet work of Mr. Arbuthnot Lane while he removes the colon from a lad of 19 to cure constipation and unites the ileum and the sigmoid by lateral anastomosis, or by his clever manipulation by which he removes some inches of the rectum for malignant disease and brings the ends together, restoring the continuity of the tube. At Guy's fractured bones are not "set"—they are united by small steel plates. Here, also, one sees sterilised goldleaf used in abdominal operations to prevent adhesions, apparently with satisfactory results.

The weakness of London is in its operative gynaecology, and one may attend the general hospitals and never see a hysterectomy or the removal of pus tubes. This is admitted, but it is claimed that English women are so extremely moral that they never have diseased appendages. Perhaps so; but English is spoken in Piccadilly by night as well as French and German. Much of London's gynaecology is done in small rooms in the big hospitals, away from the view of spectators, and never likely to be found by post-graduates. In Paris one can see ten hysterectomies daily. If, however, one is fortunate enough to gain admission to the Chelsea Hospital for Women, one can see at the hands of Mr. Bland-Sutton and Mr. Giles some of the finest operative gynaecology of the day; but this hospital is semi-private, and is not in "the ring." While on this subject, it will be a gratification to Sydney graduates to know that one of our own men—Dr. Stewart McKay—is highly thought of in London, where his books and his work are looked upon as being of the first rank, and where his ability is fully recognised.

Mr. Lane's removal of the colon has attracted much attention, and is looked upon as being too heroic; but if Metchnikoff is right, and the colon is merely a useless heritage from our animal ancestors, serving only as a store and breeding place for countless millions of bacterial flora, from which their products enter and poison the system, Mr. Lane is simply ahead of his time, and doing

for the individual what nature is too slow in doing for the race.

Mr. Lane's operation for cleft palate, performed the day after birth, is not universally accepted, but, as an operation, his wonderful manipulation makes it a success.

Mr. Barker, at University College Hospital, operates with spinal analgesia produced by stovaine. The patient talks to the assistant during the operation, and is quite unconscious that anyone touches him; but though no bad results have followed, spinal analgesia has not "caught on" in London, and shows no sign of superseding general anaesthesia.

St. Peter's, Henrietta-street, attracts men from all parts of the world to witness Mr. Freyer's marvellous dexterity in urinary surgery, and one sees the prostate outside the bladder in 3½ minutes from the beginning of the skin incision. The operation, in Mr. Freyer's hands, is simplicity itself, and gives excellent results.

The Throat Hospital and Central London Hospital give splendid teaching, and have no connection with any post-graduate association. Here, one sees Killian's operation constantly done; while Mr. C. J. Heath's mastoid operation, which does not remove the ossicles, rupture the membrane, or interfere with hearing, is rapidly coming into use and superseding all others.

In operative technique there is not much to notice, except that animal sponges and absorbent cotton swabs have long since disappeared, and that the swab and sponge are applied by forceps, never by the hand. Surgeons, assistants and nurses, all alike, wear rubber gloves. Lavage of the abdominal cavity is a thing of the past, packing off and sponging being relied upon; and, provided there is no bleeding point, a little blood left in the abdominal cavity is considered of no importance.

One thing it is satisfactory to find, that although at present it is good to be a Britisher in France, Paris has nothing, as I have said before, to teach London's best men in surgery.

Dr. E. Angas Johnson, of Adelaide, has just completed a course of lectures to a post-graduate class at the Adelaide University, which was well attended, and it was apparent from the interest taken, that it is time the Australian Universities included in their curriculum, instruction in tropical medicine.

CLINICAL AND PATHOLOGICAL NOTES.

NOTES ON A CASE OF HÆMOPHILIA
NEONATORUM.

MRS. B. was delivered of her third child (a male), which looked healthy, on March 6th, 1907. Owing to insufficient pains the labour was completed by the aid of forceps. Delivery was easy. There was a fair-sized caput succedaneum. Thirty-six hours after birth hæmorrhage occurred subcutaneously into the skin of left ear and the neighbouring portion of the scalp, and rapidly extended over the whole of the scalp, face and neck. Eyes bunged up. Wherever hæmorrhage occurred the skin became hard, discoloured and tender. The infant apparently suffered pain, which became acute on movement. The lips and finger-tips became very blanched. The motions were very tarry, indicating hæmorrhage into the bowel. I saw the infant 12 hours after the onset of the trouble, and gave a very grave prognosis. As the infant refused to take the breast he was fed with the breast milk by means of a spoon. Later on small areas of hæmorrhage the size of a canary seed appeared in the skin of the body and limbs. The following mixture was prescribed: Tr. hamamelid ℥v., solut. adrenalin chlorid. (1 in 1000) ℥ii., spt. chloroformi ℥ii., aq. ad. dr.i.; dr.i. every three hours. As predicted, the baby had a convulsion a few hours later, but it did not usher in the death as predicted. The child lived on, and gradually the colour returned to the lips and the child resumed sucking. The cord did not separate until the ninth day, and then without bleeding. At the same time some peeling of the epidermis occurred, which I considered an indication of syphilitic taint. Mercurial ointment was prescribed and is still being applied to the skin of the abdomen. The "black eyes" persisted a fortnight, being the last places to resume the normal condition.

Brisbane. E. W. KERR SCOTT, M.B.,

EXOPHTHALMIC GOITRE—A TYPICAL CASE.

THE following case exhibits some unusual features in exophthalmic goitre:—

Mrs. G., midwifery nurse, aged 58, consulted me about middle of July complaining of weakness and trembling of limbs, sleeplessness, and loss of appetite. Her previous history was good, with exception of

retroversion of uterus, which, however, had been symptomless since the menopause at age 50. The patient attributed her condition to a shock four weeks before. A friendly gossip told her that her son had been arrested by the police. This, although afterwards found to be untrue, upset her very much. When first seen the symptoms were fine tremor of the hands and coarse trembling of the legs; the feet, when patient was sitting, beating a sort of tattoo upon the floor. The breathing was quick, panting in character even after rest; the pulse rapid, 96, regular. There was some marked œdema of both legs. The heart was normal in size and free from murmur. No albumen or casts in the urine. There was no enlargement of the liver or other abdominal symptom, except some moderate dilatation of the abdominal aorta; no enlargement of thyroid, and no protrusion of eyeballs. Sight and speech were normal, and no alteration of reflexes. The patient was sent to bed and given phosphate of sodium and strophanthus. Early in August enlargement of the thyroid gland showed quite suddenly, the right lobe being chiefly affected, systolic cardiac murmurs soft in aortic and mitral areas developed, and the pulse rate rose to 120-140. The dilatation of the abdominal aorta also suddenly increased, becoming very pronounced, with heaving pulsation and loud systolic murmur resembling aneurism. This pulsation distressed the patient much. The breathing was hurried and panting even in bed. Œdema of legs had disappeared. There was no exophthalmos either at this time or afterwards. Stellwag's and von Graefe's signs were absent. At this stage obstinate frequent vomiting set in and continued for 3½ weeks. Nothing checked it. The vomiting was said by the patient to be caused by the heaving beat of the aorta. The bowels were constipated throughout, and sleeplessness was an almost constant and rebellious symptom. About end of August symptoms began to decline in severity. Vomiting was less frequent, sleep and appetite returned, thyroid gland lessened in size, pulse slowly fell to 90, aortic pulsation became much less marked, breathing slower, and tremors of hands and trembling of legs disappeared. The bowels now acted regularly without medicine. Early in October the patient was nearly well, thyroid normal, the pulse still 90.

The interesting features of this case are:—
The advanced age of the patient (58 years),

the marked dilatation of the abdominal aorta simulating aneurism, the coarse trembling of the leg muscles brought on by the slightest exertion, even by turning in bed, and the obstinate vomiting. Drug treatment was without effect; phosphate of sodium, strophanthus, digitalis, belladonna, morphine, heroin, etc., were tried in turn, without any appreciable good result. The constant current was not used.

Inverell, N.S.W. W. J. MORTON, M.D.,

REVIEWS AND NOTICES OF BOOKS.

THE DIAGNOSIS AND TREATMENT OF INTUSSUSCEPTION. By Charles P. B. Clubbe, L.R.C.P., M.R.C.S., of Sydney. Edinburgh and London: Young J. Pentland. Sydney: Angus & Robertson. Price, 4s 3d, post free.

The author of this little work writes with the authority conferred upon him by an experience of no less than 144 operations for intussusception in infants. Truly a splendid volume of clinical work in a branch of surgery of comparatively recent development. We doubt whether any other living surgeon can approach this record. This being so, we looked with confidence for a treatise on the subject from Dr. Clubbe's pen that should at once establish an unmistakable claim to be regarded as a standard and complete exposition of our present knowledge of this somewhat mysterious affection, and of the best surgical methods of dealing with it. We must confess to a shock of disappointment on reading in the preface that "it does not pretend to be an exhaustive treatise on the subject," and we can only ask the question, "Why not?" Mr. Clubbe is the man of all others from whom we should wish to hear an exhaustive treatise, and we feel that we are the losers through his excessive modesty. Mr. Clubbe has endeavoured with the minimum of self-assertiveness to afford the maximum of practical aid to "young practitioners" in the matter of diagnosis and treatment, and it would seem that the two aims have proved to be somewhat conflicting. Every word on the subject of diagnosis and treatment is admirable and convincing, but there might be so much more of it of equal or even greater value. Thus in the matter of diagnosis there is little or nothing in Mr. Clubbe's description that is not to be found in the ordinary textbooks; and this is just what we do not chiefly want from a clinician of such vast and exceptional experience. We should like to have had some minute accounts of and some helpful points of recognition displayed by cases that have presented unusual difficulty and insidiousness. The young practitioner (and the older one, too) wants help in detecting the occurrence of intussusception in cases where there is no obvious sudden onset, no marked evidence of pain, and no passage of blood. We have even seen one or two cases where, in an infant already under treatment for diarrhoea, the onset of intussusception was productive of scarcely any sign except marked diminution in the size of the motions, together with an indefinite *malaise* only apparent to the eyes of an observant mother.

Again, we would point out that although the varieties of intussusception are classified very carefully, and in a manner that we confess we find a little bewildering, no allusion is made to any symptomatic differences

manifested by these different varieties. Yet there are some very important ones. Thus, the colic variety and the ileo-caecal or enteric varieties are wide as the poles asunder in respect of their clinical features. Case 38 in Mr. Clubbe's series illustrates this, for we there find it recorded that the duration of the intussusception (colon into colon) was ten days. In the "Intercolonial Medical Journal of Australasia," July 20th, 1906, there will be found the report of a case of large bowel intussusception in which the distinctive characters of this variety of the affection are clearly exhibited, and the train of symptoms by which it is to be recognised very definitely stated; yet we find nothing of this kind in the volume before us.

By far the most valuable feature in the book is the chapter on Irrigation, and its precise value and status in the surgical armamentarium. On this subject Mr. Clubbe writes simply and convincingly (as indeed he does throughout the work), and with a completeness of reasoning and a sound sense that would seem to establish finally the rightness of his views on this matter.

In general terms we would say that while the quality of Mr. Clubbe's little work is beyond criticism, in point of quantity it is inadequate and scanty to a degree that seems to us to rather seriously impair its value. If we are reasonably a little disappointed that out of the mountain of Mr. Clubbe's clinical experience there has come forth such a veritable mouse of a *brochure*, we are not precluded from hoping that the future may be productive of a publication a little more worthy of the author and of his admirable work.

"FIRST AID" TO THE INJURED AND SICK. An Advanced Ambulance Handbook. By F. J. Warwick. B.A., M.B., Cantab., M.R.C.S., L.S.A., and A. C. Tunstall, M.D., F.R.C.S. (Edin.). Fourth edition, Bristol: John Wright & Co. 1906. Price, cloth, 2s; paper, 1s.

This is an excellent handbook containing all that is required to enable ordinary intelligent persons to render first aid to the injured and sick. The authors are experienced teachers of first aid, and are therefore thoroughly conversant with their subject.

Beginning with a description of the human body—its anatomy and physiology—we are taught the application of various kinds of bandages, the treatment of hæmorrhage, how to render first aid for wounds and injuries. In the chapter on artificial respiration, four methods are well described, viz., Sylvester's, Howard's, Marshall Hall's, and the Laborde. Insensibility, burns and scalds and the removal of foreign bodies from the eye, ear, nose and stomach are described lucidly. The chapter on transport is full, clear and well illustrated.

Such a manual as this should prove of great value to those who, having mastered the principles of first aid, as taught by the St. John Ambulance Association, are desirous of making themselves more proficient in the art of rendering that assistance which any one of us may require at any moment.

The volume is well illustrated and of a handy size for the pocket or travelling bag.

AMBULANCE EXAMINATION QUESTIONS: Being a Catechism on Warwick and Tunstall's First Aid to the Injured and Sick. By D. M. Macdonald, M.B. Bristol: John Wright & Co. 1905. Price, 6d net.

This is an excellent supplementary volume to Warwick and Tunstall's "First Aid." The questions are thoroughly practical, and the problems such as to suggest an intimate knowledge with the subject.

A TREATISE ON SURGERY. In two volumes. By George R. Fowler, M.D., Examiner in Surgery, Board of Examiners of the Regents of the University of the State of New York, Emeritus Professor of Surgery in the New York Polyclinic, etc. W. B. Saunders Company. Melbourne: Jas. Little. Price, £3 3s.

This is a well-printed work, profusely illustrated, there being no less than 888 illustrations in the 1327 pages devoted to the subject matter of the work. Dr. Fowler has attempted to compress the whole range of surgery in a space totally inadequate, the result being a brevity in the text which almost amounts to simple classification. The illustrations alone occupy nearly half the work, and, although we are told that they are original, in very many instances are useless, and could well have been omitted in such a work. We fail to see why illustrations of scalpels, retractors, sterilisers, ear-syringes, croup-kettles, and even nurses winding bandages should be introduced in the effort to impart knowledge in surgery.

The system or arrangement adopted in all works on surgery which, like this, are intended as text-books, is of importance. We congratulate the author on the method he has adopted, viz., a division into general and regional surgery.

Under general surgery are included sections on inflammation, injuries and diseases of tissues, gunshot injuries, wound diseases and chronic surgical infection, tumours, surgical operations in general, anaesthesia, principles of operative treatment, operations on individual structures, foreign bodies and bandaging. Interpolated in the section devoted to inflammation is a short article on surgical bacteriology, and in a separate section is an admirable chapter on laboratory aids in surgical diagnosis and prognosis. We are free to confess that the portion devoted to surgical bacteriology could have been amplified with advantage, appended to the section on laboratory aids, and perhaps placed at the commencement of the work.

The sections on regional surgery are taken in order—head, neck, thorax, abdomen, etc.—and one cannot but help admiring the perfect system of classification.

The portion devoted to the abdominal and pelvic regions, occupying one-fourth of the whole work, is far the most complete, and here the individuality of the author is more manifest. Sound and practical, it demonstrates the possibilities of the next edition.

Hydatid disease, its symptoms, diagnosis and treatment, is mentioned in a fragmentary manner, which will not appeal to the Australian surgeon.

The only fault in the work is that the subject matter is too concise and brief. As a matter of fact and regret it is more an epitome of, than a treatise on, surgery. The book contains the germs of a good work, and we feel sure that the future editions will be improved.

THE CHLOROFORM PROBLEM. By Richard Gill, B.Sc., M.B. (Lond.), F.R.C.S. (Eng.). Number of pages lxxvi + 597, in two volumes. Edinburgh and London: Wm. Blackwood & Sons. Price, 10s net.

Mr. R. Gill, B.Sc., M.B., B.S. (Lond.), F.R.C.S. (Eng.), Chief Chloroformist to St. Bartholomew's Hospital, has written two volumes on what he designates the Chloroform Problem. The first volume contains a preface of lxxvi pages and an introduction of merely 160 pages. In the preface the author devotes the lxxvi pages to the elaboration of the generally accepted

propositions set forth in the first four paragraphs, and for the benefit of the plain, practical, everyday working anaesthetist has enunciated this among other formulæ:

$$RA = a + b \left[\begin{array}{c} r.c. + a.c. + L + m \\ rmc + Ht + p + V \end{array} \right] + c$$

abn CHCl₃; *airway*, direct *abn* stomachic action.

However, he admits this may be the result of a complication. The introduction of 160 pages is largely a reiteration of the preface. One or two dogmatisms, however, such as "Pulmonary congestion is the cause of increased cardiac power" (p. 15), "only one cause—cardiac contraction—can produce venous distension during the progress of chloroform action, and it is the only cause that can add to it," attract one's attention. But to be believed the book must be read. One is glad to note with regard to chloroform that the first essential before the commencement of its administration is the knowledge that it is of standard strength. This, we are told, is obtained through the *sense of smell*; and discrimination of differences in the characteristic odour of chloroform is acquired by practice. The author, unfortunately, omits to mention whose sense of smell is to be depended on—the administrator's or the victim's. On the same page (216) he states that with standard chloroform at the maximum the corresponding volume of displaced air may be represented by *x*. If instead of being standard the quality of chloroform is of inferior strength, it will be found necessary to increase the normal maximum—from 6 to 8 or 10 or more drops in order to produce unconsciousness. This is so deliciously vague that one is almost tempted to wonder if one might safely represent the volume of displaced air by *y* or *z*, or if it could be used in the production of a Christmas pantomime. When one reads, however, on page 218 that "automatic respiration implies the condition of unconsciousness," one is near the end of Vol. I, and only a very brave man will then venture into the intricacies of Vol. II. If he does, the following gem on page 258 will reward him:—"In order to test the connection of chloroform odour and the blood, the following experiments were instituted: The quantity of normal blood was kept constant at one pint, but the amount of fluid chloroform was made to vary. It was found that when the latter was small—e.g., *f* dr. i.—no trace of odour could be distinguished immediately after shaking, but with larger quantities, up to *f* dr. i., there was a diminution of intensity of odour which was less as the proportion of chloroform was greater."!! At this point your reviewer had only left sufficient presence of mind to add the exclamation marks.

ANEURISM OF THE ABDOMINAL AORTA. By F. P. Nunneley, M.A., M.D. (Oxon.). London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 3s 6d.

In this small book, which was a dissertation for the degree of Doctor of Medicine in the University of Oxford, the author gives a short account of the earliest historic cases of the affection, and then discusses briefly the etiology, pathology, diagnosis and treatment of the disease. In the second part of the book are appended the notes of 32 cases of aneurism of the abdominal aorta, collected from the records of St. George's Hospital, London, these being now published for the first time. As the author himself admits, there is little or nothing new in the pages of this publication, except the series of cases, which may be of some service to those interested in the subject.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH APRIL, 1907.

THE PROFESSION AND THE PUBLIC.

IN the course of his presidential address delivered at the annual meeting of the New South Wales Branch of the British Medical Association, Dr. ANTILL POCKLEY took occasion to refer to some matters which very vitally affect the profession and the public. In passing, we may say that no President of his Branch has during his tenure of the office displayed more firmness and tact, or done more to uphold the dignity and honour of the profession than Dr. POCKLEY, and we think it is a matter for regret that custom demands the retirement from office of one who has so worthily filled it. "The length of the black list is a matter of some concern, and it is to be regretted that ostracised men cannot, or will not, see the error of their ways and seek to be rehabilitated." We must all agree with these remarks, but we would go further, and say that the existence of, or the necessity for the existence of, a black list at all is a matter of deepest regret, and the sooner we can dispense with such a list the better it will be for the profession, and the higher will be our esteem in the eyes of the public.

There can be no question that the prestige of the profession is not what it was 20 or 30 years ago. There are probably many causes at work which are leading to this end. In former times the medical practitioner was not only the adviser in times of sickness and accident, but also the trusted friend of the family. He was the attendant at the births of the children, he attended them in the ail-

ments of their childhood, and knew them as personal friends as they grew to young manhood and womanhood. Nowadays "family" practice is on the wane. The diminished birthrate, the frequent employment of midwives at confinement, and the common practice of home treatment in minor ailments, and sometimes even in more serious diseases,—the result of the extensive advertisement of quack and proprietary medicines and the popularising (?) of medical treatment in the columns of newspapers and magazines—have all conduced to diminish the amount of medical attendance sought for by a family, and the consequent loosening of the bonds which unite medical practitioner and the family. We believe that the great extension of the principle of contract practice, with all its associated evils, and the friction which so often arises between lodge doctors and lodge patients, has further tended to isolate practitioner from patient.

We have, however, reason to congratulate ourselves that the future is not all dark. During the past year a conference has been held between delegates from the Council of the Branch and from the friendly societies to discuss the model lodge agreement which was drawn up last year and published as a supplement to this journal last September. As a result of this conference there is every reason to believe that the friendly societies will at last be induced to recognise the fairness of a wage limit for all members receiving medical benefits. We have sought this concession for years, and there seems now every hope of its being granted. For this we have again to thank our retiring President, since there is no doubt that the successful result of these negotiations must be attributed very largely to the tactful and determined manner in which he guided these discussions to a fruitful issue. And it is right that the profession at large should know and recognise this.

We have referred to one or two points in Dr. POCKLEY's address, but we would earnestly commend the most of it to the careful consideration of all members of the profession, for it verily behoves us all at this period of our history to heal the breaches in our own ranks and to manifest in our relations with one another, as well as with the public, such a high standard of honour as will restore to the medical profession the prestige and dignity which it deserves.

THE ABUSE OF ALCOHOL.

Two sides of the question of the consumption of alcoholic liquors have been presented in recent cablegrams published in the daily press. According to one cable it is announced that the consumption of beer in the United Kingdom in 1905 averaged $27\frac{1}{2}$ gallons per head of the population, compared with $32\frac{1}{2}$ gallons in 1899, and that there were also considerable reductions in the quantities of wines and spirits consumed. This reduction in the amount of alcoholic liquors used by the people of Great Britain cannot but be a matter of satisfaction, when one considers that it signifies not only a diminution in the amount of drunkenness but in the amount of disease acquired and inherited as a result of the abuse of alcohol.

Another side of the question has been the publication of a manifesto in the columns of the *Lancet* by 16 leading medical men of Great Britain to the effect that alcohol is a most useful drug in the treatment of certain diseases, and its use in moderate amount by adults is not only harmless, but even beneficial. At least such is the tenor of the manifesto as published in the cablegram. It is further stated that this manifesto is signed by, amongst others, Professor MCCALL ANDERSON, of Glasgow, and Professor HALLIBURTON, of King's College, London.

It appears probable that this manifesto is a counterblast to the pronouncement by Sir VICTOR HORSLEY at the annual meeting of the British Medical Association in Toronto last year, to the effect that alcohol was useless as a drug, and its consumption in any amount was injurious to the nervous system.

Extremist views on any question do not carry conviction in the minds of the majority, and we cannot agree with Sir VICTOR HORSLEY that alcohol is practically useless as a drug, and that as much good can be effected by a tumbler of hot water as by a dose of brandy and water in a case of cardiac failure. It is quite true that the views of the profession as a whole have undergone a change in recent years, and the large doses of alcohol which were formerly administered in cases of acute pneumonia or typhoid fever, for example, are things of the past. But we are convinced that alcohol has a place, and an important place, too, in the therapeutical armamentarium of the medical practitioner.

No doctor of any experience, however, can shut his eyes to the terrible effects which are produced by the alcoholic habit on the minds and bodies of its victims and their offspring. For we must not forget the long roll of morbid condition of the nervous system in children and young adults which can be traced to the evil effects of alcohol on the germ cells. The very insidiousness of the habit, too, and the ease with which a patient, particularly a female patient, may become a secret drinker, should lead one to be extremely cautious in ordering or advising the use of alcohol in any form as a drug.

While thus we agree with the manifesto that alcohol has a useful place as a drug in the treatment of disease, and in moderation, in certain conditions, *may* be beneficial in adults, we think that such a general pronouncement as appears to have been made

public is most injudicious and calculated to do an immense amount of mischief, and will tend to nullify the good advice which must be given by any conscientious practitioner who sees from time to time the evil effect of even moderate drinking in some of his patients. In a recent paper on alcohol and diseases of the nervous system, BIANCHI, the Italian psychiatrist, expresses the opinion that a large amount of the epilepsy, crime, idiocy, etc., which occur in Southern Italy is due to the excessive consumption of alcohol, and as to remedial measures he considers that more is to be expected from education than legislation, and in the process of education of the people, the doctor, he maintains, must take a leading part. With this opinion we entirely agree, and regret the publication of the views of a few medical men in such an unqualified manner as must lead to more harm than good.

THE MONTH.

The A.N.A. again.

The annual session of the New South Wales Board of Directors of the Australian Natives' Association has been held in Sydney this month, and in the course of his opening address the chairman made two things quite plain. The first was that the Association had not prospered to the extent they would wish, because of the opposition of the British Medical Association. We may congratulate ourselves on this fact, and although the chairman expressed the desire that the British Medical Association should be early approached with a view to a reconsideration of their case, we are quite sure that the profession in New South Wales fully upholds the policy adopted by the B.M.A. towards this organisation, and is not prepared to recognise it as in any way deserving of their consideration from the point of view of its being a legitimate medical benefit society. We have seen and heard too much of the evil results to the profession which are manifested to-day in a neighbouring State not to take warning and refuse to place ourselves under

the heel of such a monster. The second point in the address is that the chairman makes no secret that the Association is really political in its aims and objects. It is not an Association founded upon philanthropic principles, but one which seeks to interfere in State and Federal politics, and as such has no claim whatever upon the charity of the medical profession. At the first meeting of the recent conference between delegates from the council of the N.S.W. Branch of the British Medical Association and from the Friendly Societies' Association two delegates from the A.N.A. made their appearance. The president, Dr. Pockley, at once insisted upon their withdrawal, stating that the British Medical Association in New South Wales did not recognise the A.N.A. as a friendly society, and the delegates were obliged to withdraw. This attitude is the only one which we can consistently continue to maintain towards the A.N.A.

The Circular Quay Sea Wall.

The occurrence recently of a fatal case of plague in a resident of North Sydney, and the discovery of plague-infected rats in the building occupied by the Sydney Harbour Trust on the Circular Quay, indicates a focus of plague infection in rats in the neighbourhood of a thoroughfare which is daily used by tens of thousands of persons. In this connection an inspection of the Quay wall was made at the direction of the Board of Health, and the report of the inspector has revealed a state of things which is a continued menace to the health of the city. That such an insanitary condition of affairs and such a harbourage for rats should have been allowed to remain all the years that plague has been prevalent in Sydney is a standing disgrace to the Government of the State. The Board of Health has for years past been impressing upon the Government and the general public that until the rats can be exterminated there will be no exemption from the danger of plague epidemic. Yet in spite of that warning this filth spot has been allowed to remain, and now the very body which should have from the first taken this matter in hand and insisted upon the Government erecting a rat-proof sea wall, allows even its own offices to become infested with plague rats. Surely in the face of such official indifference, to use no stronger language, it is not to be wondered at that plague still recurs in our midst. The Board

of Health can apparently do no more than it has been doing in urging the adoption of every measure to exterminate the rats, and it is the imperative duty of the Government, no matter what the expense may be, at once to construct a rat-proof sea wall all round the Circular Quay.

Infant Life Protection in Victoria.

The need for more efficient means of protecting the lives of boarded-out infants has been emphasised recently at inquests held in Melbourne on two of these unfortunates who have succumbed to what appears to be carelessness on the part of the foster-mothers. The Chief Secretary, Sir Alexander Peacock, thinks that female inspectors should be appointed and that boarded out children should be subject to inspection up to five years of age instead of only till two years, as at present. At present the inspections under the Infant Life Protection Act are made by the police, and Sir Alexander Peacock thinks they have been much more efficient during the past few years. The Chief Commissioner of Police, Mr. O'Callaghan, maintains that the duty of inspection under this Act is well and conscientiously done. During recent years scores of nurses who were not considered fit for their work had been struck off the register, and there had been a decrease in infant mortality. At the conclusion of the inquest on another of these cases, the Melbourne City Coroner, Dr. Cole, stated that he agreed with the Chief Commissioner of Police that reputable nurses would prefer police inspection. Dr. Mollison, the Government Pathologist, expressed the opinion that the mortality amongst this class of infants would not be affected by the appointment of female inspectors. The paramount consideration, he said, was that the children should have fresh milk. This view was endorsed by the Coroner, who remarked that if the infants received the product straight from the cow a great proportion of them would be saved. While we admit that efficient inspection and the providing of fresh milk are two most necessary factors in the prevention of mortality amongst boarded out infants, we would again urge the importance of recognising gastro-enteritis as a contagious disease and the adoption of official notification and efficient isolation and disinfection. There is no doubt that the want of recognition of this fact is responsible for the very high rate

of mortality which prevails, especially in large institutions in which these patients are kept.

The Education of the Feeble-minded.

For some years the State Children's Relief Board has been advocating the establishment in New South Wales of homes for the accommodation and treatment of feeble-minded children, and the matter has been discussed at length in the annual reports. A home for those under the control of the board is now about to be established through the sympathetic interest of the Rev. Dr. and Mrs. Jefferis, of Adelaide, who have given for the purpose the proceeds of a sale of a house originally used as a cottage home for children. The building is to be erected at once on Crown land at Parramatta, adjoining the cottage home for invalid children there, according to plans prepared with the approval of the Government Architect.

Exhumation of Dead Bodies.

At the beginning of 1906 the duty of supervising the exhumation of dead bodies in New South Wales was transferred from the Department of Lands to the Board of Health. A return has been presented to the board showing the number of exhumations during past year. The total number was 196, of which 124 were the bones of Chinese for return to China; the remainder were for reinterment either in some other grave in the same cemetery (43), or for transfer from one cemetery to some other at a distance (27). Eleven burials also were reported as having taken place in closed cemeteries of the bodies of persons who had acquired allotments prior to the formal closure. It is not generally known that although permission to exhume may be granted by the Board of Health, the so-called permission does not and cannot override that provision of the common law by which the exhumation of any dead body is made a misdemeanour, punishable by imprisonment; and that the so-called permission is in reality only an intimation that if the exhumations be conducted with knowledge of the police, and strictly in accordance with the conditions imposed by the board, no notice would be taken of the infringement of the law. In the case of any infringement of the conditions laid down by the Board of Health, it rests with the Attorney-General to take what action he may consider necessary.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

THE annual meeting was held in St. James' Hall, Phillip-street, on Friday, March 22nd, at 8.15 p.m.

The chair was taken by the retiring President, Dr. F. Antill Pockley, and there were about 40 members present.

The minutes of the last meeting were read and confirmed.

The PRESIDENT announced the election of the following new members:—Drs. Eric Pockley, Summer Hill; Henry Peet, Gilgandra; L. R. Hagen, New Lambton; H. R. Palmer, Thirlmere; W. W. Greer, Kyogle; H. R. Poate, A. MacInnes, C. H. Bradley, J. E. Deakin, H. H. Schlink, F. B. Craig, A. J. Mackenzie, O. A. Diethelm, W. Vickers—all of the Royal Prince Alfred Hospital.

The annual report of the Council and the balance-sheet were taken as read and adopted; also the report of the manager on the AUSTRALASIAN MEDICAL GAZETTE.

REPORT OF THE COUNCIL FOR THE YEAR ENDING 31ST MARCH, 1907.

THE presentation of the annual report affords the Council an opportunity of congratulating the members on the continued prosperity of the Branch.

Membership.—The Branch numbers 555 members, as against 501 at the commencement of the year 1906. Although the increase in membership is above the average for recent years, there are still many practitioners in the State who are not members of the Association. The need for complete organisation of the medical profession grows stronger as time progresses in order to counteract the many forces gathering year by year which tend to lower the status of the general practitioner and to rob medical practice of its legitimate rewards. The aim of the Council is to develop the Branch until it includes among its members every practitioner in the State; and the Council appeals to each individual member to make it his duty to approach every reputable practitioner in his neighbourhood who is not a member and to induce him to join the Association. In the present state of the organisation of the profession in New South Wales it is only through the British Medical Association that there is any prospect of medical practitioners being able to speak with one voice and to act together for the common good.

Meetings.—There were held during the year two extraordinary general meetings and eight ordinary general meetings; the meetings of the Council numbered 12. The attendance of members at the general meetings was very satisfactory. Many of the papers read and exhibits shown were valuable contributions to medical science.

Officers.—After nearly eight years of unremitting service as honorary secretary and a still longer period as member of the Council, Dr. G. T. Hankins resigned in May owing to his removal to Warwick, in Queensland. On his retirement the Council passed the

following resolutions:—1. "The Council of the New South Wales Branch of the British Medical Association accepts with the deepest regret the resignation of Dr. G. T. Hankins as a member of the Council and honorary secretary of the Branch." 2. "The members of the Council desire to place on record an expression of their appreciation of the valuable services rendered to the Branch by Dr. Hankins as honorary secretary since September, 1898." 3. "That a copy of the foregoing resolutions be conveyed to Dr. Hankins, with an assurance of the goodwill and the best wishes of the members of the Council for his future welfare." At the invitation of the Council, Dr. Crago, for many years honorary treasurer, accepted the position of honorary secretary, and Dr. G. H. Abbott replaced Dr. Crago as honorary treasurer. The vacancy in the Council created by the retirement of Dr. Hankins was filled by the election of Dr. R. H. Todd.

Articles of Association.—The Articles of Association have been amended and reprinted. A copy has been sent to each member. Two new by-laws, dealing with the election of members to represent the Branch on the Central Council of the Association, and with the election of a representative to the annual representative meeting, were passed.

Representation of the Branch.—Dr. G. E. Twynam and Dr. C. J. Martin, F.R.S., were elected for a further term of three years to represent the Branch on the Council of the British Medical Association in London. Dr. Crago was again appointed to represent the Branch on the General Committee of the Sydney and Suburban Provident Medical Association.

Formation of Divisions.—Early in the year Dr. Hankins circulated a provisional scheme for the formation of "divisions" in accordance with the constitution of the British Medical Association as applicable in the United Kingdom. Under such a scheme members of particular districts comprising a division would hold meetings locally, and would have the right to elect a representative member to the Council of the Branch. Several communications favourable to the proposal were received, and also some expressing disapproval. The matter remains in abeyance.

Lodge Practitioners' Defence Fund.—The occurrence during the year of strained relations between friendly societies and their medical officers in two districts has brought forcibly under the notice of the Council the necessity of establishing the "Lodge Practitioners' Defence Fund" on a stronger and sounder basis. Out of £97, the amount of the fund in hand, the Council voted sums totalling £90 to two practitioners who had resigned their appointments as medical officers, and had thereby suffered heavy pecuniary loss, which they could ill afford to incur, rather than submit to the unfair exactions of their lodges.

Model Lodge Agreement.—A committee of the Metropolitan and the Suburban Medical Associations, of which Dr. F. P. Sandes was honorary secretary, drafted a model agreement in skeleton form with the object of securing uniformity in the agreements made between lodges and their medical officers throughout the State. This model agreement after approval by the Council was submitted to an extraordinary general meeting of the Branch. At that meeting it was resolved that this model lodge agreement should be adopted by all members holding appointments as medical officers of lodges as indicating the conditions of their service from and after July 1st, 1907, provided that a referendum should be made to the whole body of the members, and

a majority of four-fifths of those voting were in favour of its adoption. The referendum was made, but the requisite majority in favour of the adoption of the model agreement was not obtained. Subsequently to the publication of the proposed agreement in the AUSTRALASIAN MEDICAL GAZETTE, the Friendly Societies' Association asked the Council to confer with them in reference to it. The Council consented, and the president, the honorary secretary, the honorary treasurer, Dr. Worrall, Dr. Dick, and Dr. Clarence Read were chosen to represent the Council. A conference took place on December 23rd. Subject to certain verbal amendments, all the clauses of the proposed agreement were found to be acceptable to the Friendly Societies' Association, with the exception of that fixing a wage limit for members of lodges entitled to their medical benefits. That clause was postponed for further consideration at a renewal of the conference on February 28th, when the delegates of both sides agreed to recommend to their respective bodies that £200 should be the wage limit at admission, and as soon as a member's income exceeded £300 per annum he should cease to be entitled to the medical benefits of his lodge.

Relations with Pharmaceutical Chemists.—A conference was held on September 7th between delegates of the Council and of the Council of the Pharmaceutical Society of New South Wales in reference to questions of common interest to medical practitioners and members of the Pharmaceutical Society. A report on the matters discussed and the conclusions arrived at was published in the AUSTRALASIAN MEDICAL GAZETTE.

Public Matters.—Correspondence took place during the year between the Council and the Secretary to the Railway Commissioners in reference to the methods adopted by the Railway Commissioners for testing the eyesight of employees and candidates for employment in the railway service. Further correspondence on the subject has been deferred until after the new Commissioners have entered upon their duties.

Medical Ethics.—The Council has been invited during the year to adjudicate in ethical disputes between members of the profession, and its attention was called to instances of advertising in newspapers by members of the profession. The Council urges members of the Branch not to resort to newspaper advertisement in any form for the extension of their practice. The occasion is very rare when such advertisement is not an insult to other members of the profession. The Council reminds members that it is undesirable on every ground that complaints regarding a fellow member's professional conduct should be introduced in the first instance at general meetings of the Association. The Council is the constituted authority of the Association to deal with ethical matters in dispute between members. If the Council has failed in performing its duty in this respect, then, but not till then, a member is justified in resorting to the tribunal of a general meeting.

New Premises.—The desirability of acquiring suitable premises for the Branch at which the meetings of the Association may be held and provision made for a library and reading room of real utility to members has been apparent to the Council for some years past. The honorary secretary was authorised to seek for a suitable site, and has succeeded in finding land in a very convenient position that can be purchased. It is estimated that a sum of from £8000 to £7000 will be required for its purchase and for the erection of a suitable building. Definite proposals in reference to

this matter will be submitted to members for their consideration.

Amalgamation of the Medical Societies in Victoria.—The successful termination of negotiations between the Medical Society of Victoria and the Victorian Branch of the British Medical Association for the amalgamation of these two bodies is a matter for hearty congratulation. This amalgamation should prove of great benefit to the profession throughout Australia, inasmuch as the field is left clear for the representation of the whole profession in Australia by one organisation, and that one the British Medical Association. At the request of the delegates entrusted with the negotiations between these two bodies, the editor and the manager of the AUSTRALASIAN MEDICAL GAZETTE visited Melbourne in May last and conferred with them in reference to the adoption of the AUSTRALASIAN MEDICAL GAZETTE as the official organ of the societies which it was proposed to unite. The matter is still receiving the attention of the newly constituted Victorian Branch of the British Medical Association. It is possible that the New South Wales Branch may be asked to sell a share in the GAZETTE to the Victorian Branch—a procedure which was contemplated and intended to be given effect to, at the time the New South Wales Branch purchased the GAZETTE, in the event of a branch in another State desiring to acquire an interest in it.

The Australasian Medical Gazette.—The AUSTRALASIAN MEDICAL GAZETTE has continued its successful career. Dr. Rennie was re-appointed editor and Dr. Crago manager of the GAZETTE at the first meeting of the Council held after the last annual meeting.

Finance.—The honorary treasurer's statement of the receipts and expenditure for the year ended December 31st, 1906, and the balance-sheet of the GAZETTE at the same date, both duly audited, are herewith submitted.

F. A. POCKLEY, President.

W. H. CRAGO, Hon. Secretary.

PAPERS.

"The Use of the Diaphragm in Röntgenography."—Dr. HERSCHEL HARRIS.

"Two Cases of Calculi—Ureteric and Renal."—Dr. PERKINS.

"Some Cases of Extra Uterine Pregnancy."—Dr. CRAGO.

"The Clinical Value of the Correct Estimate of Blood Pressure."—Dr. SINCLAIR GILLIES.

"Notes on Cases of Foreign Body Retained in the Orbit for Four Years."—Dr. POCKLEY.

"Notes on a Case of Syncope Bradycardia."—Drs. SINCLAIR GILLIES and GILL.

"Sarcomata of the Stomach."—Dr. MACCORMICK and Professor WELSH.

"The General Principles of Therapeutic Inoculation, with Special Reference to Tuberculin."—Dr. MILLS.

"The Leucocytosis of Hydatid Disease."—Professor WELSH and Dr. BARLING.

"The Localisation of Cerebral Functions—Demonstration."—Dr. A. W. CAMPBELL.

"Early Malignant Disease."—Dr. HINDER.

"Method of Removing Malignant Glands of the Neck Secondary to Mouth Carcinoma."—Dr. MAITLAND.

"Progressive Muscular Atrophy."—Dr. LITTLEJOHN.

"Spasmodic Dysmenorrhœa."—Dr. CHENHALL.

"Re-integration of the Absent Middle Third of the Tibia in a Child."—Dr. FIASCHI.

"Adjustable Axis Traction Forceps."—Dr. BARRINGTON.

EXHIBITS.

Case of Transposed Viscera.—Dr. C. H. LAWES.

Hair Affected with Lepothrix.—Dr. W. J. MUNRO.

Fallopian Tube containing an Ectopic Pregnancy.—
Dr. NEWMARCH.

Foreign Body retained in the Orbit for four years.—
Dr. POCKLEY.

Patient suffering from Syncopal Bradycardia.—Drs. SINCLAIR GILLIES and MACDONALD GILL.

Bilharzia Hæmatobia.—Dr. STACY.

Unruptured Tubal Gestation, with Ovarian Cyst on the same side.—Dr. CRAIG.

Case of a Facial Type of Erbs' Juvenile form of Progressive Muscular Atrophy."—Dr. LITTLEJOHN.

Re-integration of the absent middle third of the Tibia
in a child.—Dr. FIASCHI.

Section of an inguinal gland containing spirochætæ pallidæ.—Dr. W. J. MUNRO.

Anatomical Specimen.—Dr. PALMER.

Pair of adjustable axis traction forceps.—Dr. BARRINGTON.

Fibroid tumour weighing 19 lbs., removed from a patient aged 72 years.—Dr. McKAY.

ATTENDANCE OF COUNCILLORS—1906.

Fourteen Council meetings were held.

Dr. Crago attended 14 meetings, Dr. Rennie 14, Dr. Maitland 12, Dr. Worrall 12, Dr. Pockley 13, Dr. Abbott 11, Dr. MacCormick 9, Dr. Dick 9, Dr. Hinder 10, Dr. Brady 7, Dr. Todd* 9, Dr. Clarence Read 10, Dr. Newmarch 10, Dr. Hankinst 3, Dr. Beeston 2.

*Dr. Todd appointed 22nd June.

†Dr. Hankins resigned 18th May, 1906.

STATEMENT OF ACCOUNTS FOR YEAR 1906.

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

RECEIPTS.		£ s. d.		EXPENDITURE.	
Dec. 31, 1906—				1906—	
To Balance in Banks ..	£598 0 4			By <i>British Medical Journal</i>	£ 547 0 3
" Petty cash	3 0 11			" <i>A. M. Gazette</i>	343 18 6
		601 1 3		" Rent, Royal Society	10 0 0
" Subscriptions received ..		1,077 19 0		" Clerical assistance	50 0 0
" Branch subscriptions from parent As-				" Assistant librarian	20 0 0
sociation		2 12 0		" Printing	48 3 5
" Amount added for exchange ..		2 17 0		" Stamps (postage and duty), telegrams	33 4 2
" Interest received		26 5 0		" Refreshments for general meetings ..	11 0 0
				" Exchange on cheques	5 0 0
				" Library expenses	9 9 6
				" Advertisements, etc.	4 18 0
				" Sundries	4 10 1
				" Balances—Banks .. £618 5 4	
				Petty cash .. 5 5 0	
					623 10 4
		<u>£1,710 14 3</u>			<u>£1,710 14 3</u>

Feb. 7, 1907—Audited and found correct.

FRED. W. HALL
FRED. J. T. SAWKINS } Auditors.

G. H. ABBOTT, Hon. Treasurer.

THE "AUSTRALASIAN MEDICAL GAZETTE."

**To the Council of the New South Wales Branch of the
British Medical Association.**

I have the honour to report that the *Australasian Medical Gazette* has fully maintained its position during the past year, as will be seen from a perusal of the balance sheet and the profit and loss account herewith, duly audited.

In May last the Editor and I attended a conference in Melbourne with delegates of the Medical Society of Victoria and of the Victorian Branch of the British Medical Association, at which conference the question of the adoption of the *A.M.G.* as the official organ of the reconstituted Victorian Branch was fully discussed.

A basis of an understanding, which should prove satisfactory to all concerned, was arrived at, but the final decision was left to the new Council. We were very hospitably entertained by the President of the Medical Society of Victoria (Dr. M. U. O'Sullivan).

Thanks are due, and are hereby tendered to Drs. Pockley, Gill, Taylor-Young, Barrington, Flashman, Arthur, Russell Nolan, and others for their assistance to the Editor in writing the reviews on current medical literature.

The difficulty in obtaining regular correspondence from the local editors in some of the States is a constant source of annoyance to the Editor.

W. H. CRAGO, Manager.

THE AUSTRALASIAN MEDICAL GAZETTE.

BALANCE SHEET AS AT DECEMBER 31ST, 1906.

LIABILITIES.			ASSETS.		
	£	s. d.		£	s. d.
To Outstanding account	71	5 0	By Goodwill account (at cost)	1,150	0 0
„ Advt. revenue account (being unexpired portions of contracts)	220	6 4	„ Sundry debtors	771	17 11
„ Provision for bad and doubtful debts	100	0 0	„ Cash at bankers	269	7 9
„ Balance profit and loss	1,801	6 2	„ Cash in hand	1	11 10
	<u>£2,192</u>	<u>17 6</u>		<u>£2,192</u>	<u>17 6</u>

PROFIT AND LOSS ACCOUNT.

	£	s. d.		£	s. d.
Printing account	746	7 6	Dec. 31, 1905—		
Management expenses (including salaries, stamps, rent, discounts, commission, provision for bad and doubtful debts, and general expenses)	745	13 2	By Balance	1,704	6 2
Balance	1,801	6 2	Dec. 31, 1906—		
	<u>£3,293</u>	<u>6 10</u>	By Subscriptions revenue account	738	19 9
			„ Advt. revenue account	843	12 7
			„ Interest account	6	8 4
				<u>£3,293</u>	<u>6 10</u>

Examined and found correct.

FRED. J. T. SAWKINS }
 FRED. W. HALL } Auditors.

March 7, 1907.

W. H. CRAGO, Manager.

The PRESIDENT then delivered his address. (See page 157.)

Dr. SCOT SKIRVING, in moving a vote of thanks to Dr. Pockley for his address, said it was a good rule that they were not at liberty to discuss the address of the retiring President, but he wished to express his gratitude for the clear and able manner in which Dr. Pockley had placed before them some of the burning questions in medical politics. It was an address which should be carefully read by both seniors and juniors in the profession. During his tenure of the office of president, Dr. Pockley had shown admirable justice and fairness in the conduct of the business, and had well maintained the dignity of the profession.

Dr. WORRALL wished to second the resolution, and to draw attention to the able manner in which Dr. Pockley had presided over the conference recently held between the delegates from the Council of the Branch and the friendly societies. Although he had long ceased to have any personal interest in these societies, he had yet rendered himself perfectly familiar with the various points submitted for discussion, and was able to reply to the arguments of the delegates with skill, tact and determination. Dr. Pockley was a bright example of unselfishness in upholding the honour and dignity of the profession.

Dr. CRAGO heartily supported the resolution, and drew attention to the report on the ethics and etiquette of consultations, published in a recent issue of the Supplement to the *British Medical Journal*, which was submitted to the Branches for discussion.

The motion was put and carried with acclamation.

Dr. POCKLEY, in reply, thanked the speakers for the words spoken of him. He used to be a lodge

doctor himself, and he had not lost sympathy with lodge doctors. He drew attention to the paragraph in the report of the Council on the conference between the friendly societies' delegates and their Council, and he considered the fact that these delegates had pledged themselves to recommend the recognition of the principle of the wage limit to their societies as one of the most important gains the profession had ever secured. He hoped that the profession would stick together and be unselfish in maintaining their position. He again thanked them most sincerely for their expressions of goodwill.

The PRESIDENT then announced the election of the following office-bearers:—President, Dr. B. J. Newmarch; Vice-President, Dr. G. H. Abbott; Councilors—Drs. Beeston, Brady, Crago, Dick, Hinder, Jenkins, MacCormick, Maitland, Pockley, Clarence Read, Rennie, Todd. The auditors, Drs. F. W. Hall and F. J. T. Sawkins, were re-elected.

Dr. Worrall was elected representative of the Branch to the annual representative meeting of the parent Association to be held at Exeter in July next.

In response to the invitation of the President-elect of the annual meeting at Exeter, Sir P. Sydney Jones, Drs. Worrall and Clubbe were nominated as guests from the Branch.

Dr. Pockley then vacated the chair in favour of the newly-elected President, Dr. B. J. Newmarch.

Dr. NEWMARCH thanked them for the honour conferred upon him, and said he would do his best to follow the example set by the retiring president.

A vote of thanks to the scrutineers of the ballot was passed with acclamation, and the meeting terminated.

LODGE PRACTITIONERS' DEFENCE FUND.

Dr. CRAGO presented the Treasurer's statement, showing the state of that fund at the end of 1906.

Dr. CLARENCE READ drew attention to the smallness of the fund, and made an appeal for more liberal contributions to it.

As a result of his appeal five members present promised donations of £10 10s each.

The former trustees (Drs. Crago, Furnival and Thomas) were re-elected.

STATEMENT OF ACCOUNTS AT DECEMBER 31ST, 1906.

December 31st, 1905—				£	s.	d.	December 31st, 1906—				£	s.	d.
To Balance	..	..	..	85	2	1	By Balance	..	..	..	97	13	9
1906—													
To Subscriptions	..	..	..	9	9	0							
„ Interest	..	..	..	3	2	8							
£97 13 9							£97 13 9						

FRED. W. HALL
FRED. J. T. SAWKINS

Auditors.

March 7th, 1907.

W. H. CRAGO, Hon Treasurer.

MEDICAL BENEVOLENT FUND.

Dr. CRAGO (for Dr. Maitland) explained that through the absence from Sydney of the Hon. Treasurer (Dr. Faithfull), the Treasurer's statement was not ready, but would be published in the next number of the AUSTRALASIAN MEDICAL GAZETTE.

The following office-bearers were re-elected:—Dr. Faithfull, hon. treasurer; Dr. Maitland, hon. secretary; Drs. Hall, Macdonald Gill, and Quaife, members of committee.

Council Meeting.

The Council met at the Association rooms on Friday, March 8th, 1907. Present: Drs. Pockley, Crago, Rennie, Todd, Maitland, Hinder, Newmarch, Clarence Read, Abbott.

The minutes of the previous meeting were read and confirmed.

The following members were elected:—Dr. Eric Pockley, Summer Hill; Dr. Henry Peet, Gilgandra; Dr. L. R. Hagen, New Lambton; Dr. H. R. Poate, Dr. A. MacInnes, Dr. C. H. Bradley, Dr. J. E. Deakin, Dr. Schlink, Dr. F. B. Craig, Dr. A. J. Mackenzie, Dr. O. A. Diethelm, Dr. W. Vickers (R.P.A. Hospital).

Nominations for office-bearers and councillors were received.

Drs. Crago and Todd were appointed to initial the ballot-papers.

It was agreed that the annual meeting should be held at St. James' Hall.

Drs. Sawkins, F. W. Hall, Palmer and Stacy were nominated as scrutineers of the ballot.

Dr. CRAGO presented the treasurer's statement—duly audited—which showed that there was a credit balance of £823 10s 4d on the general account at December 31st, 1906. Dr. Crago also presented the GAZETTE balance-sheet (audited). Lodge Practitioners Defence Fund credit balance, £97 13s 9d.

The PRESIDENT reported that the conference of the delegates from the Friendly Societies' Association had been held, and that the following resolution was submitted and carried:—

“And this agreement finally witnesseth that any person joining the said lodge on and after a date to be fixed not later than 28th February, 1908, shall be

deemed ineligible for any benefits or privileges hereinbefore provided if on joining the lodge he and his wife have joint income exceeding £200 per annum, or at any time thereafter should their joint income exceed £300 a year.”

“The delegates present and the members of the Council pledge themselves to recommend the adoption of this resolution to their respective organisations.”

Dr. CLARENCE READ moved a vote of thanks to Dr. Pockley for his work in connection with the conference. Carried.

Resolved—That Dr. Worrall be nominated to represent the Branch at the annual representative meeting of the parent Association to be held at Exeter.

Letters from the Medical Secretary, stating that New South Wales Branch had been allowed independent representation by two members on the Central Council for 1907-8.

Letter from Drs. Vallack and Throsby *re* coroners' inquests. Resolved—That the Minister of Justice be approached on the question.

Letter from the Lord Mayor with reference to the holding of an International Exhibition in 1910. Resolved—That the President be authorised to act for the Branch.

Letter from the Hon. Secretary to Dr. Jeffreys Wood, of the Victorian Branch, and letter from Dr. A. Jeffreys Wood in reply, also a second letter from Dr. A. Jeffreys Wood were received.

Letter from the President-elect of the British Medical Association inviting guests from this Branch. Resolved—That Sir Phillip Sydney Jones, Drs. Worrall and Clulbe be nominated as delegates.

Letter from Dr. Studdy with reference to appointments to the North Shore Hospital. Resolved—That Dr. Newmarch be authorised to deal with the question.

Letter acknowledging receipt of amount from Lodge Practitioners' Fund. Received.

Letter from Dr. Savage *re* a medical man's name not appearing upon the confidential list. Hon. secretary's reply approved.

Letter from Mr. Greenstreet, chemist, with reference to prescriptions. Resolved—That the matter be published in the GAZETTE without names.

Letter from the secretary to the Admiral with reference to the list of medical men to serve in the navy. Received.

Victoria.

THE ordinary monthly meeting was held in the hall of the Medical Society on Wednesday, April 3rd. The President, Professor Allen, occupied the chair, and there were about 30 members present.

The SECRETARY reported that the Council had elected Drs. Clive Harcourt, Alfred E. Harker and Short as members of the Association, and also Drs. Fleming, W. A. James, J. A. Reid, S. Plowman and Orivelli, formerly members of the Medical Society of Victoria. He also reported the transfer from the Queensland Branch of Dr. V. McDonald, and to the New South Wales Branch of Dr. E. Ken Herring.

The PRESIDENT reported the receipt of a telegram from Sir T. N. Fitzgerald, expressing his willingness to act as one of the representatives of the Branch at the Exeter annual meeting.

Dr. J. W. SPRINGTHORPE moved—"That this Association approves of the recommendation of the Victorian Branch of the Australasian Massage Association that the University confer a diploma of massage." He referred to other diplomas granted by the University in music, agriculture, education, etc., and considered massage a branch of work equally worthy of such recognition. The course taken by masseurs before they could be registered was equal to any taken anywhere in the world.

Dr. NIHILL seconded the motion.

Dr. MOORE considered the conferring of such diplomas degrading to the degrees of the University. At any rate it was too early to consider the matter, as the Massage Association and its course of study had only been in operation for 12 months. We should first see the value of the practical work done.

Dr. WILKINSON thought the time not ripe to take this step. Massage should be simply a branch of the medical profession, and the granting of such a diploma would only tend to create a large class of irregular practitioners. The masseurs should be content to further organise their association and safeguard their own work on legitimate lines.

Dr. OSTERMEYER thought that it would be time enough to consider this matter when the Massage Association showed itself more capable than it seemed at present of exercising discipline upon its members.

After Dr. SPRINGTHORPE had replied, the motion was put and lost.

Dr. W. KENT HUGHES moved—"That this Association considers it advisable to have one medical journal for Australasia." He would say little of the advantages of one official journal for the whole of Australasia, as he considered them fairly obvious. Many objections had been raised, such as the loss of exchange on our local journal and the loss of local control. Neither of these were in his mind serious objections, and were merely the expression of provincial jealousy. He understood that the Sydney Branch, which owned the GAZETTE, was prepared to act generously in every way. The sooner we fell into line with the rest of Australasia and recognised the AUSTRALASIAN MEDICAL GAZETTE as our official organ the better. One of the great advantages of the publication of papers and discussions was the criticism they received from outside, and a local Victorian journal could not expect to have the circulation of a more widely official one.

Dr. A. J. WOOD seconded the motion. He was quite in accord with the principle of the motion, but feared that it was not attainable at the present time.

The PRESIDENT stated that under the by-laws of the Branch the Council had full power as regards the choice

of the official organ. The Council, however, would always be glad to give its best consideration to any suggestions from the members. Dr. Hughes seemed to have missed the whole point of the matter. The choice by the Council of the "Intercolonial Medical Journal" as the provisional organ of the Branch was actuated purely by matters of policy. The policy of the New South Wales Branch could not with safety be adopted by us at present. In the abstract the ideal towards which all must work was that of one journal for Australasia expressing a united policy. He hoped that the time was not far distant when this could be. More unity among the members of the profession must, however, first be obtained.

Dr. HENRY thought that with local editors and separate part of the paper set apart for Victorian matter the difficulty could be overcome. He understood that the Sydney editors would allow a free hand in the expression of Victorian policy.

Dr. SPRINGTHORPE supported the action of the Council, and moved as an amendment—"That the matter be left in the hands of the Council."

Dr. ANDREWS seconded the amendment. He considered that to carry a declaratory resolution of this kind was a waste of time.

The amendment was carried.

The PRESIDENT announced that he had received a letter from Dr. Hamilton Russell reminding the Branch that Lord Lister would celebrate his 80th birthday on the 5th inst. He had much pleasure in moving that a congratulatory cablegram be sent to Lord Lister.

Dr. G. A. SYME seconded the motion, which was carried unanimously.

Dr. CONSTANCE ELLIS showed a woman 47 years of age suffering from paralysis of the third nerve, which came on suddenly 14 days ago. She awoke unable to raise the right eyelid. The extrinsic muscles, with the exception of the external rectus, were paralysed, and she herself noticed the diplopia. The pupil on the affected side does not react to light or accommodation. The fundi are normal. The cause had not been discovered. The patient also had a funnel-shaped deformity of the sternum. The heart was pushed over, the impulse being felt in the posterior axillary line, and the apex beat in the sixth interspace. There were systolic and diastolic bruits to be heard at the left border of the sternum. Her blood-pressure varied from 190 Hg. m.m. to 140 Hg. m.m. She had slight dyspnoea on exertion. The urine passed amounted to 35-45 oz. in 24 hours, sp. gr. 1010-1020; trace of albumen. The urea varied from 2 per cent. to 1.5 per cent.

The PRESIDENT said that such cases as Dr. Ellis had shown could not be adequately examined in general meeting. He suggested that a clinical committee should be formed to examine and report on cases shown.

Dr. SPRINGTHORPE read a paper on "Some Instances of the Therapeutic Value of Suggestion."

The paper was discussed by Drs. Nihill, Ostermeyer, and O'Neill.

At the close of the above meeting a special meeting of the Branch and of the Medical Society of Victoria was held, at which the following amendments of the by-laws of the Branch and of the rules of the Society were carried, on the motion of the PRESIDENT, seconded by Dr. NIHILL:—

MOTION TO AMEND THE BY-LAWS OF THE VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

At the end of rule 4 add the following words: "and any representative or representatives elected by any division or divisions of the Branch."

In rule 5 omit the word "and" before the words "Assistant Treasurer"; and insert after the word "Treasurer" the words "and any representatives of divisions."

At the end of rule 9 add the following words: "and shall be supplied to all ordinary members of the Branch."

In rules 14, 15 and 34 after the word "fix" insert the words "and the organ of the branch on payment of such sum as the Council of the Branch may fix."

Enact a new rule, 10A, as follows:—"10A. The member or members of the Central Council and the representative chosen by the Branch need not be members of the Branch, but must be members of the British Medical Association. The term of office of the member or members of the Central Council chosen by the Branch shall be decided in each case by resolution of the Branch."

MOTION TO AMEND THE RULES OF THE MEDICAL SOCIETY OF VICTORIA.

At the end of rule 4 add the following words:—"Provided that any representatives chosen by divisions of the Victorian Branch of the British Medical Association to be members of the Council of the Branch shall also be members of the Committee of the Medical Society of Victoria."

In rule 5 omit the word "and" before the words "Assistant Treasurer"; and insert after the word "Treasurer" the words "and any representatives of divisions of the Victorian Branch of the British Medical Association."

At the end of rule 9 add the following words: "and shall be supplied to all ordinary members of the Society."

In rule 32 omit the words "residing not more than 20 miles from the General Post Office, Melbourne," and the words "or if resident more than 20 miles from the said place, a subscription of 6s 6d."

Add at the end of rule 32 the following words: "This subscription shall entitle every ordinary member to receive the organ of the Society for the current year only, without further payment."

In rule 14 after the words "may not vote," and in rule 15 after the words "shall not vote," and at the end of rule 34 insert the following words: "They may receive the organ of the Society on payment of such sum as the Committee of the Society may fix."

Queensland.

A MEETING of the Queensland Branch was held on Friday, April 5th, in the Technical College, Brisbane; Dr. Love, president, in the chair.

The PRESIDENT read for Dr. Scott "Notes of a Case of Hæmophilia Neanatorum." (See page 178.)

The PRESIDENT read for Dr. Baxter Tyrie a paper on "Latent Tuberculosis of the Tonsils and Pharyngeal Adenoid Tissue." (See page 174.)

A general discussion took place upon the question.

REPORTS OF OTHER SOCIETIES.

New South Wales Medical Union.

THE annual meeting was held at 121 Bathurst-street, Sydney, on March 27th; Dr. A. Jarvie Hood presided. The following gentlemen were declared elected to the respective offices, viz.:—Councillors (10)—Drs. A. J. Brady, C. U. Carruthers, P. J. Collins, J. Foreman, S. H. MacCulloch, W. Odillo Maher, Clarence Read, G. E. Rennie, Walter Spencer, P. M. Wood; hon. treasurer, Dr. W. H. Crago; joint hon. secretaries (2), Drs. J. M. Gill and A. Jarvie Hood; hon. auditors (2), Drs. C. B. Blackburn and G. A. Marshall.

The annual report and treasurer's statement were read and adopted.

Apologies were received for inability to be present from Drs. G. E. Rennie and F. W. Quaife.

The minutes of the preceding annual meeting were read and confirmed.

Dr. J. M. GILL read the annual report of the Union for the past year as follows:—

THE FOURTEENTH ANNUAL REPORT, 1906-7.

The Council reports another successful year in the affairs of the Union. Three hundred and twenty-seven (327) members have paid the annual subscription as against three hundred and ten (310) in the previous year, an increase of 17; 23 new members have been elected, and 6 have dropped out. The local honorary secretaries have continued to perform their duties in a satisfactory manner. One case only has come under the consideration of the Council, but no expenditure has been incurred in this case as yet. The treasurer's statement shows the funds in hand to be £3451 0s 2d, an increase of £470 6s 7d on the year. The Council would again urge upon the members the desirability of bringing the advantages of joining the Union before those of their professional friends who are not already members. Three Council meetings have been held. The number attended by each member was as follows:—Dr. Quaife, 2; Dr. Rennie, 2; Dr. Spencer, 3; Dr. Gill, 3; Dr. Crago, 3; Dr. Brady, 1; Dr. Fiaschi, 2; Dr. Faithfull, 3; Dr. MacCulloch, 2; Dr. Odillo Maher, 2; Dr. Collins, 1; Dr. Carruthers, 3; Dr. Jarvie Hood, 2; Dr. Clarence Read, 1.

Dr. CRAGO read his financial statement for the past year, and moved its adoption. Seconded by Dr. SPENCER. Carried.

NEW SOUTH WALES MEDICAL UNION.

STATEMENT OF RECEIPTS AND EXPENDITURE FOR THE YEAR ENDED FEBRUARY 28TH, 1907.

RECEIPTS.				EXPENDITURE.			
To Balance, Feb. 28th, 1906	..	..	£2,980 13 7	By Assistant Secretary	..	..	£10 0 0
„ 319 Subscriptions, 1906	..	..	334 19 0	„ Rent	..	..	5 0 0
„ 35 Subscriptions, 1907	..	..	36 15 0	„ Printing and stationery	..	..	13 18 9
„ 20 Entrance fees, 1906	..	..	21 0 0	„ Stamps	..	..	5 13 6
„ 1 Entrance fee, 1907	..	..	1 1 0	„ Exchange on cheques	..	..	2 6 6
„ Interest received	..	..	112 8 10	„ Rubber stamp	..	..	0 2 0
„ Amount added for exchange	..	..	1 13 6	„ Bank charge	..	..	0 10 0
				„ Balance	..	..	3,451 0 2
			£3,488 10 11				£3,488 10 11

Examined and found correct.
March 5th, 1907.

J. C. WINDMYER }
E. W. FAIRFAX } Auditors.

W. H. CRAGO, Hon. Treasurer.

REVIEW OF CURRENT MEDICAL LITERATURE.

SURGERY.

Intraperitoneal Rupture of the Urinary Bladder (with report of a case operated 254 hours after accident, with recovery).

Quick (*Annals of Surgery*, January, 1907) records this case. The patient, a man aged 45 years, was brought to the Cook County Hospital, Chicago, on September 28th, 1904. Eleven days previous to admission he had received an abdominal injury, since which he had suffered from anuria and a progressive abdominal distension. He was operated 254 hours after the accident, and was discharged from the hospital on the tenth day well. The time element is the important and interesting feature in the case. It is unique in medical literature. Blumer (*British Medical Journal*, 1903, I., 789), reported a case operated the sixth day after injury, with recovery. The patient, a labourer, stated that ten days previous to admission he had been carousing and drinking, when he became involved in a brawl and was kicked several times in the right side just above the crest of the ilium. He had considerable pain in the abdomen and at the seat of injury at the time, and had to be taken home. He tried to work during the next two days, but the pain in the abdomen became so severe that he had to quit work on the second day. Ever since the injury he had only been able to void a few drops of urine at a time, but there was a frequent desire to urinate. What urine he had passed was distinctly bloody. Abdomen was markedly distended. A catheter was passed, and 5,800 cc. of blood-stained urine was withdrawn. Operation: Incision in middle line four inches long, beginning one inch above the symphysis pubis. Abdominal cavity opened. About 2,000 cc. bloody urine found free in peritoneal cavity. On the superior surface of bladder in median line was an opening with ragged edges, which admitted the thumb rather tightly. Opening in bladder sutured by Czerny-Lembert method, using medium-sized silk sutures. Abdominal cavity flushed with normal salt solution. Serosa smooth and shining. Peritoneum and abdominal wall closed by separate layer method. The bladder was drained for five days by means of a catheter through urethra. The patient made an uneventful recovery, temperature never being above 100.6°. It is noteworthy in this case that the patient performed his work as a labourer an entire day after the accident, and was not compelled to take to his bed until the second day was well advanced. The symptom of shock was entirely absent. It is well known that serious injury to persons under the influence of alcohol often lacks just this element of shock, which is so important in the diagnosis of internal injuries. The question of cirrhosis of the liver with ascites was brought prominently to the fore in discussing the differential diagnosis of this case. With marked alcoholic history, the enormous distension of the belly with fluid, prominent veins, these spoke volumes for portal obstruction. The history of injury 11 days before made one hesitate to pronounce rupture of the bladder, on account of the good general condition of the patient, for the common text-book leads one to expect a rapidly fatal issue. The sudden development of ascites following trauma, the strangury, blood from the urethra, and the practical anuria for 11 days, made a diagnosis of intraperitoneal rupture of the urinary

bladder the most probable. The passage of the catheter was decisive.

The Surgical Treatment of Renal Tuberculosis.

Watson (*Boston Medical and Surgical Journal*, February 28th, 1907) contributes a short paper under the above heading. He summarises the question of the surgical treatment of renal tuberculosis as follows:—1. *Nephrotomy* is of service as a palliative measure for the purpose of evacuating pus retained in the kidney, and for the relief of pain and fever due to such pus retention when it occurs in cases in which nephrectomy is contraindicated. Other than this, nephrotomy has no place in the surgical treatment of this condition. 2. *Nephrectomy, when performed under proper conditions*, is the *only* form of treatment of whatever kind by which we can hope to *cure* any important number of patients with this malady. What are these conditions? They are as follows:—(a) That the tuberculous infection does not involve both of the kidneys; (b) that there are no tuberculous lesions elsewhere in the body of such an extent or involving such organs or structures as to render the performance of nephrectomy useless, because of their existence; (c) that the functional capability of the kidney to remain, after the performance of the nephrectomy, shall have been established beforehand. When these conditions are present, nephrectomy will result in the *cure* of from 25 per cent. to 30 per cent. of the patients, and at an operative risk of from 7 per cent. to 10 per cent. Tuberculous infection of the kidney at the outset is confined to one of the two organs in the large majority of female patients, and in probably more than one-half of the males. Of the means employed to determine the presence of the disease in one kidney and its absence in the other, the chief are: (1) testing the urine drawn from each kidney separately, and (2) the cystoscopic appearances of the orifices of the ureters. To recapitulate: 1. The kidneys are the first of the genito-urinary organs to be involved in the infection in a considerable proportion of male patients, and in a majority of females. 2. The infection at the outset, and for variable periods afterwards, involves but one kidney. 3. We are almost always capable of determining the presence of the infection in one kidney and its absence in the other, when such is the case. 4. We can determine the functional capability of the other kidney in almost all cases. 5. Nephrectomy performed in cases in which the infection is confined to one of the kidneys, and in which the functional capability of the other one has been demonstrated, yields from 25 per cent. to 30 per cent. of cures. 6. The operative mortality when nephrectomy is done under the proper conditions is about 8 per cent.

Papillary Cystadenomata of the Breast.

Greeough and Simmons (*Annals of Surgery*, February, 1907) present a report on 20 cases of the papillary cystadenoma type of fibro-epithelial tumours of the breast. The difficult point in the classification of benign tumours of the breast is the association of connective tissue and epithelium in their composition. Warren's classification, which is to harmonise the clinical signs and symptoms of these tumours with their pathological nomenclature, is as follows:—

Classification of benign breast tumours:—

I. Fibro-epithelial tumours:

- | | |
|------------------|-------------------------|
| | (1. Periductal fibroma. |
| (a) Fibrous type | 2. Periductal myxoma. |
| | 3. Periductal sarcoma |

- (b) Epithelial type (1. Fibro-cystadenoma. (cystadenoma) } 2. Papillary cystadenoma.

II. Hyperplasia :

- (a) Diffuse hypertrophy.
(b) Abnormal involution (cystic disease).

Papillary cystadenomata are not uncommon. They are localised tumours—either single or multiple—and involve, as a rule, the large ducts of the breast. The authors conclude an interesting article with the following summary:—Twenty breast tumours of the papillary cystadenoma type showed the following characteristics: (1) They were single or multiple, involving the large ducts near the nipple, and composed of one or more cyst cavities from the walls of which grew papillary outgrowths composed of a fibrous tissue stroma and a luxuriant growth of duct epithelium in the form of irregular gland tubules and polypoid projections. (2) Tumours of this character have been described by many names, viz., adenoma, duct papilloma, duct cancer, villous papilloma, cystadenoma intracanalicular, proliferous cysts, etc. (3) They occur in the male breast as well as in the female. (4) They occur at all adult ages and independent of trauma, marriage or lactation. (5) They are usually painless. (6) They are generally situated near to or beneath the nipple. (7) They are usually of small size, but occasionally attain the size of an orange. (8) They are of slow growth. (9) Their most characteristic symptom is the presence of a discharge from the nipple which may be serous, but is usually bloody in character. (10) Do not cause enlargement of the axillary glands. (11) Fifteen per cent. of the 20 cases in this series were associated with a form of cancer (adenocarcinoma) of a relatively slow type of malignancy. (12) Treatment demands the complete removal of the tumour, either by excision or, if necessary, amputation of the breast. (13) Excision may be performed by plastic resection or by an areola incision. (14) The association of cancer with papillary cystadenoma in 15 per cent. of the cases justifies the separation of this group from other fibro-epithelial tumours of the breast in clinical and pathological classification.

Silverised Catgut. A study of the method of Cr  d   for sterilising catgut without heat.

Blake (*Annals of Surgery*, January, 1907) contributes the above-named study. In a visit to Dresden he found that Professor Cr  d   used catgut sutures almost exclusively, that there was no post-operative infection attributable to the inefficient sterilisation of the catgut, and that post-operative infections from any cause were very rare. Cr  d  's treatment of the catgut was to impregnate it with colloidal silver and preserve it dry; then, several days before use, it was placed in alcohol. In the spring of 1906, while engaged in laboratory work in connection with the service of Dr. L. S. Pilcher in the Methodist Episcopal Hospital in Brooklyn, Blake undertook to test specimens of catgut prepared in a similar manner to that of Cr  d  . The tests covered a period of several months. Collargolum is simply metallic silver prepared in such a manner that it is soluble in water, but not diffusible through animal membrane. It occurs as simple, hard, brittle, bluish-black, scale-like pieces, which are soluble in water to the extent of 1 in 20, the solution being dark olive brown in colour and remaining stable for months. Collargolum is unaffected by boiling; but boiling is quite unnecessary, as the solution itself is antiseptic. Very numerous tests were made as to the best way to prepare it, and also numerous cultures to prove its

sterility before it was used in actual operations. It was found unnecessary to soak the catgut in ether before placing it in the collargolum solution. From five to seven days are necessary for the complete impregnation of the gut with the silver salt. The solution should not be used a second time. Two per cent. was found to be the best strength. The tensile strength of catgut so prepared is slightly greater than that of ordinary sterilised gut. The following is the author's method of preparing it: Four coils of catgut each containing ten strands, are wound on four glass slabs and placed in a jar containing a 2 per cent. solution of collargolum. They remain in this about a week, the jars being shaken once or twice in the interval. The slabs are then removed, washed in sterile water until the excess of collargolum solution is removed, and placed in 95 per cent. of alcohol for 15 to 30 minutes. After this the separate strands are wound on separate spools, under aseptic precautions, and preserved in 95 per cent. alcohol until used. Four coils are employed as the unit, as they exactly fill the jar containing the collargolum solution; and as many jars are prepared at any one time as may be necessary. For a time it was noted that the catgut when removed from the spool was a trifle soft and hard to thread, whereas a few minutes later it would be hard and almost wiry. The cause of this was found to be an error in technic. The catgut as it comes out of the collargolum solution is quite as soft as after soaking in plain water. In order to dry it it is necessary to expose it to the air until the silver is deposited as a metallic sheen. If placed in the alcohol too soon, this change does not occur until it is once more exposed to the air as at operation. Dr. Pilcher adds the following note: "Since the demonstration by Dr. Blake of the reliable qualities of silver preparation in rendering catgut not only aseptic, but also to a certain degree antiseptic wherever buried in a tissue, it has been used in all my operative work at the Seney Methodist Episcopal Hospital, amounting in number to more than 500 operations, and has continued to give me abundant satisfaction and to justify, clinically, all the expectations which the laboratory experiment of Dr. Blake had suggested. During this period there has been a notable absence of infective accidents in an active general service which has included nearly every variety of operative interference. Silverised catgut has become established as a permanent factor in our operating-room methods. The method of preparation is simple and reliable, and may be commended to a further trial by surgeons."

DISEASES OF THE EAR, NOSE, AND THROAT.

Mastoid Surgery.

The *Journal of Laryngology* for February, 1907. Editorial article. The justification for operations on the middle ear and mastoid in certain cases is given as depending on three main points:—(1) Risk of life; (2) the effects of a prolonged continuance of the morbid process upon the function of the auditory apparatus; and (3) the severity of the existing symptoms. The paucity of reliable statistics is regretted, as adding to the difficulty of determining what actual risk of life exists in any given case of septic disease of the middle ear. As regards the second point, the attitude of some otologists is noted who would operate on every middle ear suppuration case which resisted regular treatment for several months, their contention being that the longer the suppuration the worse the hearing power. It is pointed out that as far as the third point goes, it

is not often that the existing symptoms are dangerous in uncomplicated chronic septic otitis media, and operation is indicated usually by the situation and extent of the disease, and that, further, the extent of the disease is only at times correctly estimated after the free exposure and inspection of the mastoido-tympanic region. This fact has largely decided aurists to discard intra-meatal operations except for minor pathological conditions, as not allowing sufficient room to provide for complete removal of the septic condition. The operations of Schwartz and Stacke were an attempt to deal with middle ear conditions in a way that would give a complete cure of the septic condition. This was accomplished, and in doing so it was remarkable how much at times of the power of hearing was preserved for the patient. Within the last few months Mr. Charles Heath has published a series of 400 cases in which he removed the drum and ossicles by a modification of the radical mastoid operation, and claimed that he got an improvement in hearing in as much as 84 per cent. of his cases. Later still he publishes details of an operation which aims at draining the middle ear cavity through the antrum and mastoid process, leaving intact the ossicles and drum, but the method is too new to allow results to be properly tested. The editorial sums up the position of the mastoid operation as follows:—"In cases of deep-seated disease where urgent symptoms are present, where there is every probability of the existence of an extensive bone lesion, menacing the life of the individual, the ordinary dictates of surgery would suggest a free exposure of the whole of the mastoido-tympanic tract. Where, on the other hand, the lesion is a chronic suppurative inflammation of the tympanic mucosa, with possibly the existence of some limited bone lesion, and where, after a careful and prolonged course of antiseptic treatment, healing has not taken place, a modified Stacke operation (such as carried out by Mr. Heath) will, no doubt, succeed in curing the existing disease and retain a fair amount of good and useful hearing power. That the operator must secure and maintain free drainage into the heart of the diseased part, and he will further best consult the best interests of his patient if he removes no more tissue than is compatible with pathological exigencies of the particular case.

Some Recent Views on the Symptoms and Treatment of Septic Thrombosis of the Lateral Sinus.

The *Scottish Medical and Surgical Journal* (Drs. McKenzie Johnston and Fraser).—1. Temperature is the most important of all; it is high, with marked remissions. 2. Rigors: There may be only chilly sensations. 3. Respiration and pulse: These vary with the temperature, but the pulse does not fall when the temperature makes its sudden descents. 4. The skin: Sweatings follow the rigors; in the intervals the skin is parched and dry. 5. Alimentary system: The foetid breath, cracked lips, and dry brown tongue simulates typhoid fever. 6. The mind is clear, as a rule. 7. Rapid loss of strength and emaciation as the disease progresses. 8. Eye symptoms: Optic neuritis is rare. 9. Blood count: As to the presence or the absence of an increase in the number of leucocytes, statements vary. 10. Lumbar puncture: In uncomplicated cases the fluid is clear. 11. The historical oedema of the mastoid, and cord-like swelling in the neck are very rare. Treatment.—To sum up the conclusions of the writers. In all cases of otitis media

purulenta with pyæmic symptoms the radical mastoid operation should be performed and the lateral sinus exposed from the knee down to a point as near the bulb as possible; the blood flow should then be shut off by gauge pads, the affected area slit open, and the clot removed. Thereafter the sinus should be treated as an abscess cavity. If it is impossible to be sure that we have got beyond the area of infected clot, or if the thrombosis be primarily in the bulb, or if there be already symptoms of metastasis, a jugular resection should be at once performed, the upper end of the divided vein being brought out at the wound, and slit open to act as a drainage tube.

Tuberculosis of the Middle Ear in Children.

The *British Journal of Children's Diseases*, November, 1906. Paul Matthews in this issue of the *Journal* concludes a long and able article on tuberculosis of the middle ear in children, and makes special reference to its occurrence as a primary lesion. He details 12 cases, and it is to be noted that of these no fewer than nine terminated fatally. He points out that of these nine fatal cases no less than eight had tubercular lesions elsewhere at death, which, he says, proves that the condition does not usually reveal itself prior to the commencement of dissemination, and that it is largely because of this that the prognosis is so gloomy. Politzer is of opinion that the condition never undergoes spontaneous cure. In primary cases the bad prognosis is held to be mainly due to the age incidence. The condition is more frequent in infants under two or three years of age, as infants make only a feeble resistance to tuberculosis at this age. The frequency with which the tuberculosis arises from a focus in bone and the unsatisfactory results of treatment. Among the factors of most evil omen are the presence of extensive caries, facial paralysis, copious blood-stained discharge, massive enlargement of the lymph glands, and the presence of tubercular lesions elsewhere. Again, the insidious onset and the absence of pain are given as contributing to the high death rate, because the patient, because of these, rarely comes under treatment until the local condition has advanced too far for cure or until dissemination has already occurred. It must not, however, be forgotten that some primary cases, even at this early age, may recover if promptly treated. Successful cases have been reported by Milligan and others, even in patients in the first year of life.

Syphilis of the Upper Air Passages.

St. Clair Thomson (the *Polyclinic*, November, 1906) points out that in the pharynx we may meet primary, secondary and tertiary manifestations, and that their prompt recognition is of immense importance. The primary infection is difficult to recognise. The secondary phenomena are regular manifestations of the disease, and therefore everyone should be on the *qui vive* for their diagnosis, and the tertiary, the gumma, leaves lifelong trouble behind if not recognised and promptly and rigorously treated. In the larynx tertiary symptoms frequently occur, especially with men, and he points out with truth that the variability of their appearance often complicates the question of diagnosis between specific disease and epithelioma or tubercle. The diagnosis of nasal chancre is not always clear from the appearance of the sore, but the early enlargement of the glands in the neck and below the jaw on the same side should arouse suspicion. This suspicion may not be confirmed until the appearance of

secondary symptoms on the skin or in the pharynx. He points out that the mucous patch not only appears during the secondary, but may recur from time to time during the tertiary period, and appear alongside typical tertiary conditions. The often disastrous after effects of syphilis of the air passages is mentioned from the tendency that syphilitic scar tissue has to contract. Discussing treatment, St. Clair Thomson says that while iodide of potassium is helpful in any stage, mercury should be given at all periods, and adds that it is the most reliable remedy in obstinate cases, and its thorough administration holds out the most promise of avoiding sequelæ or relapse. He commences with the usual mixture of 3 to 5 grains of iodide of potassium with $\frac{1}{2}$ to 1 drachm of liq. hydrarg. perchlor. in 1 ounce of decoction sarsae co. three times a day, but should the larynx be at all narrowed, the dose of iodide should be smaller, and then the effect carefully watched. This is to guard against any closure of the larynx from the first effect of the iodide, which is at times to cause considerable swelling of the mucous membrane of the larynx. He says, further, that inunction of mercury is our sheet anchor and, when possible, should always be employed. When the patient is intolerant of iodides, the syrup of hydriodic acid may be used, and if, as not infrequently happens in private and particularly female cases, it is important to prescribe specific treatment without the patient knowing it, he can order a teaspoonful of "Syrup de Gibert" three times a day. R. Hydrargri iodidi rub., gr. $\frac{1}{2}$; potass. iodidi, grs. v. aq. destill. ℥ xxx.; syrup dr. ss. And in the case of infants in whom we suspect a congenital taint, but hardly like to declare our opinion, we can prescribe in the same way "Liqueur de van Swieten" (1 per 1000 solution of perchloride of mercury) in doses of one drop in a teaspoonful of milk six times a day, rapidly increasing it to 20 or 40 drops a day.

THERAPEUTICS.

Quinine in the Treatment of Lobar Pneumonia.

Smith (*Journal of the American Medical Association*, January 12th, 1907) records his experience of the treatment of acute lobar pneumonia with large doses of quinine sulphate. Professor Loomis in 1881 wrote that his practice during the preceding four years had been to place all patients with pneumonia of a severe type on sulphate of quinine, in doses varying from 12 to 30 grains each day, and that it was the exception for a pneumonia patient not to show a marked reduction of temperature within 36 hours after the commencement of its use. It does not seem to arrest the progress of the pneumonia, but it lowers the temperature, shortens the duration of the febrile stage, and hastens the stage of resolution to complete recovery. W. J. Galbraith endorsed these views, but administered the quinine in much larger doses, believing that this drug, in sufficient doses, acts as an antitoxin (?) in pneumonia, destroying the micro-organisms and their products which produce sepsis. The method of treatment adopted is to administer from 30 to 50 grains of quinine sulphate, either in cachets or suspended in milk, at once, and to repeat in doses of 20 to 30 grains at intervals according to the temperature and the severity of the symptoms. At the same time tinct. perchloride of iron is administered in doses of ℥ xv. in simple syrup, every four hours, and the kidneys are well flushed with an alkaline water, such as Vichy. As regards the production of any unfavourable symptoms by such large doses of quinine, it is reported that with the exception of a slight ringing in the ears in two or

three cases, not any untoward symptom has been reported.

Treatment of Some Form of Gout.

Luff (*Practitioner*, February, 1907), in a very suggestive and practical article, discusses the treatment of some of the common symptoms of gout, as well as of some of those morbid conditions less commonly recognised as being due to gout. He first of all expresses his conviction that gout is a disease due to faulty metabolism, probably both intestinal and hepatic, and due to the development of toxins in the intestinal tract. He arrived at this conclusion from observations in some cases of colchicum poisoning, in which the symptoms presented closely resembled those due to arsenical poisoning. He concluded that in toxic doses colchicum is a gastro-intestinal irritant, and if in therapeutic doses it acts mainly in the intestinal canal, its rapid efficacy in cases of gout is probably due to its effect upon abnormal intestinal changes, which constituted the primary factor in that disease. He discusses first of all the treatment of acute gout, and advocates a free purge with calomel and salines at first. No food should be taken for the first 24 hours, but water should be freely drunk. As a local application to the gouty joints, he advises the following:—Sod. Carb. dr. iii, Lin. Bellad. oz. ii, Tinct. Opii. oz. ii, Aq. ad oz. viii. A small portion of this lotion, mixed with an equal volume of hot water, should be poured on cotton wool, previously arranged round the joints, and the pack changed every four hours. For internal treatment he advocates colchicum almost as a specific; he prescribes it in the form of its active principle in a pill to be taken three or four times daily, immediately after food:—Colchicine gr. $\frac{1}{16}$, Ext. Nuc. Vom. gr. $\frac{1}{2}$, Ext. Hyoscyaminæ gr. $\frac{1}{2}$, Ext. Gentian gr. i. In addition to the use of colchicum, in cases of subacute and chronic gout, Guaiacum Resin in doses of 5 to 10 grains, in cachets, two or three times daily is beneficial. He does not consider the lithium salts as good as those of sodium or potassium. The iodide of potassium, in doses of 10 grains twice daily, is specially useful in cases of gout associated with albuminuria and high arterial tension. Where there is much thickening and œdema about the joint he advocates the douching with alternate streams of hot and cold water, followed by massage. Where there are considerable uratic deposits in the joints there is nothing better than the application of galvanism, using a current of 10 milliamperes with the negative pole over the affected region for a few minutes.

In treatment of gouty dyspepsia and acidity he considers that taka-diastase in doses of 2½ grains before each meal is a most useful drug. This aids the digestion of the carbohydrate element of the food and so prevents the development of fatty acids, which are a common factor in the development of gouty dyspepsia. In gouty eczema, special attention should be paid to the bowels; calomel or "blue pill," followed by saline, should be administered at the outset. Entire abstinence from alcohol should also be enforced. During the irritable stages a lotion consisting of liquor plumbi subacetatis dr. i, liquor carbonis detergens dr. i, aqua sambuci ad Oi, is useful. Where there is much pruritus without eczema, the carbolio acid lotion should be used. Careful attention to diet is necessary, care being taken to forbid all articles which the past experience of the patient had shown to produce dyspepsia; especially acid fruits and rhubarb should be avoided. He does not consider the special anti-gout remedies to be necessary in this condition, but the associated

dyspepsia and gastro-intestinal disturbances should be treated by bismuth subcarbonate with sodium or potassium bicarbonate. For gouty insomnia, he advises the administration of small doses of "blue pill," combined with full doses of extract of hyoscyamus. Bromide of ammonia may also be given, but as a rule hypnotic drugs should be carefully avoided.

As regards dietetic treatment, it is important to recognise that an injudicious diet acts mainly by its influence on the bacteria present in the digestive tract. The greater the amount of proteid food taken, the greater will be the number of intestinal bacteria, and a corresponding increase in the catarrh of the intestinal mucosa. It is essential that there should be an accurate adjustment of the food for the capacities of the intestinal mucosa and of the liver. Poison-containing food should not be entirely withheld, but should be given in such amounts as the individual can properly metabolise. Animal foods constitute to the majority of people the most attractive and appetising forms of diet, and are likely to be taken to excess. Hence the necessity for placing some restriction on this form of food. But, on the whole, it is stated that animal food, such as fish, chicken, game and meat, is best suited to the majority of cases, whilst foods of the farinaceous class are most likely to disagree. White meats are more digestible than red meats; and the quantity of the latter must be restricted in those cases in which the kidneys are imperfectly performing their eliminatory functions, as evidenced by pale urine of low specific gravity, deficient in urea and purin bases.

Treatment of Pruritus.

Adamson (*Clinical Journal*, June 13th, 1906) deals with this subject in a practical article. He rightly insists upon the importance first of all of arriving, if possible, at a diagnosis of the cause of the morbid condition. In all cases where the pruritus is associated with a disease of the skin an important part of the treatment is to prevent the irritation of the skin by the scratching which the pruritus induces, since such irritation tends to aggravate the disease and prevent the cure. In cases of senile pruritus, not dependent upon pediculi, and for which no cause can be assigned except the atrophy of the skin, the prognosis is unfavourable, but many of them can be relieved by cannabis indica, beginning with 5 minims of the tincture and increasing to 20 or 30 minims for each dose. It should be taken well diluted after meals. As empirical remedies in distinct cases, or in cases in which the trouble is due to organic disease, quinine in large doses, antipyrin and phenacetin in doses of 10 grains gradually increased may be used. In intractable form of pruritus injections of pilocarpine 1-10th to 1-15th of a grain after a warm bath at night time have been found of signal service. In pruritus ani and pruritus vulvæ the usual common causes, such as worms, leucorrhœal discharge, glycosuria, etc., must be sought for; also local lesions, such as fissure of the anus and hemorrhoids. As temporary measures, many local applications are of value, such as calomel d. i. to vaseline oz. i. In pruritus vulvæ, relief can often be obtained by bathing the part with a warm, freshly-made, saturated solution of boric acid, and after drying thoroughly the free application of a simple zinc ointment. The X-rays are also advocated as a valuable remedy for obstinate cases of pruritus ani and vulvæ.

Messrs. Parke, Davis & Co. direct attention to their advertisement on page 12.—[ADVT.]

Chemists and Private Formulæ.

THE following correspondence between a chemist in the country in New South Wales and a medical man in Sydney, who is not a member of the British Medical Association, was recently forwarded to the Council of the New South Wales Branch of the British Medical Association, and, by their direction, is now published:—
To Dr. X.Y.Z., Sydney. February 8th, 1907.

Sir,—I have received a prescription written by you for Mr. Q., for Mist. Alk. Simpl. c. Casc. (Rose) and Mist. No. 2 (Rose). As Mr. Q. is a customer of mine, and naturally objects to paying freight from Sydney on his medicine, will you kindly inform me what the ingredients of this prescription are, and forward me a proper prescription by return post. My qualifications and drugs are quite as good as Mr. Rose's.—I am, yours truly, A.B.

(COPY OF PRESCRIPTION.)

R Mist Alk. Simpl. c. Casc. (Rose)

R Mist. No. 2 (Rose)

With directions; before meals.

R Pil. Rhei. Co. (black ovoids) 24.

(Signed) X.Y.Z.

Sydney, February 10th, 1907.

Sir,—Nobody questioned the excellence of your drugs. Mr. Rose's formula is a proprietary one, and I have communicated with him re your request for the ingredients. It is as "proper" for me to write "Mist. Alk. Simpl. (Rose)" as to write Mist. Damiana Co. (Hewlett).—Truly yours, X.Y.Z.

Dr. X.Y.Z.

February 11th, 1907.

Sir,—I am in receipt of your note of 10th inst., and am sorry you are unable to give me the ingredients of the prescription asked for. May I point out that there is absolutely no parallel between Hewlett's Mist. Damiana Co. and Mist. Alk. Simpl. (Rose), because Hewlett's preparations are on the market and procurable by any chemist; but Rose's preparations are not on the market, and procurable only at Rose's. Therefore it is a matter of opinion whether it is as proper for you to write the one as the other.—I am, yours truly, A.B.

Sydney, 13th February, 1907.

Sir,—Thanks for your note. May I point out that the doctor is sole judge of what is best for his patient, and that it would be improper for him to hesitate in prescribing a proprietary combination the value of which he had tested. Whether it be placed on the market or not is the right of the proprietor to determine, and it would be equally dishonourable in the doctor to divulge the ingredients. The fact remains, therefore, that it is as proper to prescribe Mist. Alk. Simpl. (Rose) as Mist. Damiana Co. (Hewlett).—Truly yours, X.Y.Z.

February 16th, 1907.

Sir,—I thank you for your note of the 13th inst., and I must say that I still fail to see the force of your argument. However, in the interests of other pharmacists, I propose placing the whole matter before the British Medical Association and thereby obtain an authoritative opinion on the point under discussion. Trusting that this course will meet with your approval, I am, yours truly, A.B.

Sydney, February 19th, 1907.

Sir,—Naturally you can act as you please; it matters not to me. Your object was apparent from the beginning, as well as the prompting motive thereof.—Yours, etc., X.Y.Z.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Churchill's Medical Directory for 1907—The Royal Commission on Vivisection—Milk and Tuberculosis—Death of Sir Michael Foster—The Royal Society of Medicine—The Registrar-General's Returns for 1905—A National University for Ireland.

THE new volume of Churchill's Medical Directory for the current year was issued, with its usual promptitude, in the last week of 1906. The total number of names it contains is 39,365, an increase of 444 over the total for 1906 of 38,921. The increase is so evenly distributed that an increase is recorded in every section of the profession which is dealt with in the directory. The introductory article on the principal laws affecting the medical profession is brought up to date, and is full of useful information. The book has become indispensable to the profession, and this issue is not behind its predecessors in the care and accuracy with which it has been printed and edited.

The Royal Commission on Vivisection, which was appointed in 1906, under the chairmanship of Lord Selby, has issued its first report, which consists of a short preface to an appendix containing the evidence taken at the sittings of the Commission during the last three months of 1906. The following are the names of the witnesses whose evidence is reported:—Mr. W. P. Byrne, C.B.; Mr. G. D. Thane, LL.D.; M.R.C.S., Sir James A. Russell, LL.D., F.R.C.P.; Sir W. Thornby Stoker, M.D., F.R.C.S.; Mrs. K. Cook; Dr. H. Snow; Mr. S. Stockman, M.R.C.V.S.; and Dr. E.H. Starling, F.R.S. Mr. Cook and Dr. Snow represent the Parliamentary Association for the Abolition of Vivisection.

The second interim report of the Royal Commission on Tuberculosis, of which the late Sir Michael Foster was chairman, was issued on February 1st. The Commissioners state that tuberculosis occurs in many, if not all, of our domesticated mammals—in the ox, pig, horse, sheep, cat, dog, and others. It has also been observed in many wild mammals when kept in captivity. The disease called avian tuberculosis is known to occur in certain birds, and reptiles have been described as suffering from tuberculosis. Hence the phrase tuberculosis in "animals other than man" opens up a very wide field of inquiry. The Commissioners state that they had so far limited their inquiry to identity of human and bovine tuberculosis, but the results at which they had arrived pointed very strongly to the necessity of extending their studies to the tuberculosis occurring naturally in animals other than man and the ox, and indeed the terms of their reference directed them to do that. They had already directed their attention to the tuberculosis so common in pigs. They proposed to report, on a future occasion, concerning this and other matters entailed by the terms of their reference. In summarising their report, the Commissioners come to the following conclusions:—"There can be no doubt but that in a certain number of cases the tuberculosis occurring in the human subject, especially in children, is the direct result of the introduction into the human body of the bacillus of bovine tuberculosis; and there also can be no doubt that in the majority at least of these cases the bacillus is introduced through the cow's milk. Cow's milk containing bovine tubercle bacilli is clearly a cause of tuberculosis, and of fatal tuberculosis

in man. The investigations indicated that a very large proportion of tuberculosis contracted by ingestion is due to tubercle bacilli of bovine source. A very considerable amount of disease and loss of life, especially among the young, must be attributed to the consumption of cow's milk containing tubercle bacilli. The presence of tubercle bacilli in cow's milk can be detected, though with some difficulty, if the proper means be adopted, and such milk ought never to be used as food. There is far less difficulty in recognising clinically that a cow is distinctly suffering from tuberculosis, in which case she may be yielding tuberculous milk. The milk coming from such a cow ought not to form a part of human food, and indeed, ought not to be used as a food at all. Our results clearly point to the necessity of measures more stringent than those at present enforced being taken to prevent the sale or the consumption of such milk."

Sir Michael Foster died somewhat suddenly in London on January 29th. Sir Michael was born in March, 1836, at Huntingdon, where his father was in general practice. He was educated first at the local Grammar School, and subsequently at University College, London. In 1860 he settled in practice at Huntingdon, but after a few years he was threatened with phthisis, on account of which he went abroad. On the restoration of his health, he returned, in 1867, to University College as teacher of Physiology. In 1870, when Trinity College, Cambridge, resolved to institute Praelectorships in Physiology and Theology, the former was offered to Sir Michael Foster. In 1872 he was elected a Fellow of the Royal Society, and in 1881 became one of the secretaries, in place of Professor Huxley, who had been chosen president. In 1900 he was elected to Parliament as the representative of the University of London, sitting on the Unionist side of the House, but changing later to the Radical side. He refused to take the opinion of his constituents on this change of view by seeking re-election, and held his seat until the dissolution in 1905. He was again a candidate, in the Radical interest, for the representation of the University in the general election of last year, but was defeated by Sir P. Magnus, the present Unionist member. He was joint-editor of "Huxley's Scientific Memoirs," and besides many papers, addresses and lectures, was the author of a world-wide known "Text-book of Physiology," the first edition of which appeared in 1876 and the fifth in 1888. He received the honorary degree of M.A. on coming to Cambridge, and in addition to being an M.D. of London, was an honorary D.C.L. of Oxford, an LL.D. of Glasgow, St. Andrew's, and McGill University, a D.Sc. of Dublin, and an honorary member of numerous societies at home and abroad. He was also honorary perpetual president of the International Congress of Physiology and of that section at the British Association meeting in 1897, having already been chairman of the department in 1870. He was president of the association itself in 1899 at Dover. He was created a K.C.B. in 1899.

A meeting of members interested in the amalgamation scheme of the various medical societies of London was held in the library of the Royal College of Physicians on February 19th, under the presidency of Sir William Selby Church. The Chairman stated that in order to secure a charter for the new society in time to enable it to commence work in October next, a petition must be sent in without delay, and a name must be chosen for the new society before that petition could be drawn up. It was intended to obtain the desired charter by applying for a supplementary

charter to that held by the Royal Medical and Chirurgical Society. Sir Richard Douglas Powell proposed that the name should be "The Royal Society of Medicine," and his suggestion was seconded by Mr. Warrington Haward. Sir Felix Simon, who was seconded by Dr. Maean, proposed "The Royal Academy of Medicine" as an alternative title. After the consideration and rejection of other suggested names, the Chairman asked those present to vote on the name of "The Royal Academy of Medicine," with result that it was rejected by 86 votes to 75. The meeting then agreed, without further vote, that the new society should be called "The Royal Society of Medicine."

The report of the Registrar-General of Births, Deaths and Marriages for England and Wales during 1905 has just been issued as a Blue-Book. The total population of England and Wales at the end of March, 1901, was 32,527,843. From that date until the middle of 1905 the number of births exceeded the number of deaths by 1,730,576. The estimated population in the middle of 1905 was 34,152,977. The births registered in 1905 numbered 929,293, and were in the proportion of 27·2 per 1000 of the total population of both sexes and all ages. This is the lowest rate recorded since civil registration was established. In the year 1876 the birth-rate attained in this country the highest point on record, viz., 36·3 per 1000 living. Since that date the ratio has, with trifling exceptions, steadily fallen, until in the year 1905 it was, as already stated, no more than 27·2 per 1000 living. The birth-rate calculated in this way was 0·7 per 1000 below that recorded in 1904, and was 1·8 per 1000 below the average in the ten years 1895-1904. Some of the consequences of the decreasing birth-rate in this country are modified by a decreasing death-rate. The deaths registered in England and Wales during the year 1905 numbered 520,031, and were in the proportion of 15·2 per 1000 persons living. The rate was the lowest rate recorded since civil registration was established; it was 1·0 below that in 1904, and 2·0 per 1000 below the mean rate in the ten years 1895-1904. The number of marriages registered in 1905 was 260,742, corresponding to a rate of 15·3 persons married per 1000 of the population at all ages. This rate was 0·1 per 1000 above the rate in 1904, but 0·5 per 1000 below the average rate in the preceding ten years. The marriage rate in 1893 was 14·7 per 1000 living; during the next six years it steadily rose to a maximum of 16·5 in the year 1899; while from that date it fell continuously to 15·2 in the year 1904, and was, as above stated, 15·3 in the year under review.

On January 25th Mr. Bryce, Chief Secretary for Ireland, received a deputation at his office in Dublin Castle from the Irish Presbyterian and Roman Catholic Churches on the subject of the recent report issued by the Dublin University Commission. In the course of his remarks Mr. Bryce outlined the proposals which the Government intended to bring before Parliament. By their scheme they sought to create a new college in Dublin, such as was contemplated by the majority of the Dublin University Commissioners. The college would be fully equipped, and for its purposes they would utilise the laboratories of the new Royal College of Science; also they would be able to utilise for the purposes of the new college the funds of the Royal University, subject, of course, to vested interests. The Royal University would be abolished. It was proposed to have scholarships and fellowships in the new college, which should be entirely free from the theological tests. The governors would be appointed

partly by the Crown and partly by the teaching staff and graduates, eventually the nominees of the Crown to be in a minority. No public money would be paid for religious instruction or for a chapel. The Government proposed to have the University of Dublin enlarged, so that it would become a national University for Ireland. In this University would be included Trinity College, the new college in Dublin, and the Queen's College of Belfast and Cork, neither of these places being ripe enough for separate universities. This enlarged University would be governed by a body nominated by the Crown and by the four colleges, and it would be free from any religious inequality. The graduates of the Royal University would be transferred to the enlarged University. Some of the professorships now in Trinity College might become professorships in the new University. Any church desiring to establish a theological faculty in the University should be allowed to do so on satisfying the governing body of the professors, but no payment would be made from public funds for theological teaching. If any theological faculty desired to remain in connection with the college as well as the University, they saw no objection, subject to certain conditions. The new college, doubtless, would be mainly Roman Catholic, because Roman Catholics were most likely to come to it, but it would give no more to Catholics than Protestants received at Trinity College.

MINERS' PHTHISIS.

(To the Editor of the Australasian Medical Gazette.)

Dear Sir,—I have read with pleasure the masterly report of Dr. Summons on miners' phthisis. For two years while I was senior resident medical officer to the Ballarat District Hospital I made it my business to hunt round for cases of pneumoconiosis occurring in the city, both those coming to the hospital and those occurring in the practices of other medical men, which they were kind enough to send to me. During the two years I was fortunate enough to meet with six cases of true miners' disease, uncomplicated by pulmonary tuberculosis—i.e., cases in which examination of the sputum was made five or six times during a term of three or four months, and no tubercle bacilli were found.

The following are my conclusions:—The first symptom is dyspnoea on exertion or on lying down, the causes of which, in the miner's mind, are the fumes of the gelignite or dynamite. Shortly after this, or even before, the cough makes its appearance. The condition goes on until symptoms resemble those of emphysema following bronchitis. All of my cases had been suffering from occasional cough and dyspnoea for from seven to 12 years before they sought medical advice, and had been quartz mining at deep levels on and off for from 25 to 42 years, except in one case who had been mining only seven years. There is but little loss of flesh. Hæmoptysis is confined to an occasional blood-stained sputum. The sputum in those cases uncomplicated by a general bronchitis is thick, clear, with a few white streaks, containing squamous, epithelium, white corpuscles, some carbon, traces of hæmatoidin, brown non-refractive pieces of some mineral matter, and clear white refractive pieces of quartz.

With regard to the physical signs, I would like to point out in particular that they were most marked at the bases; in four cases at the left bases, and in the other two at both bases. In five cases there were signs elsewhere, and especially at the right apices,

where there were slightly marked signs of old pleurisy ; but these were very slight in comparison with the big condition at the bases, namely, crepitations and signs of consolidation.

Dr. Summons asks if there is a type of case starting in the usual way and progressing as a pure fibrosis, and finally bringing about heart failure and death, without any superadded bacterial infection. I can answer him positively that there is, it having been my experience to have seen two such cases ; and it is my opinion that all patients who do not die of pneumonia or tuberculosis, or any other intercurrent disease, die in that way. I know of no more terrible ending, except possibly in the case of aneurism of the aorta. The condition is one of angina and dyspnoea, of which the only relief is in morphia, the nitrites and oxygen being useless. The right heart becomes enlarged, and subsequent back working makes its appearance, with all its concomitant symptoms ; but the latter are not very marked, and all is lost in the cardiac pain and dyspnoea.

I would like to mention here a practical point of the enormous relief given to those cases complaining of dyspnoea and cough by a combination of ammon. carb. gr. iv. and pot. iod. gr. x-xv. t.d.s. A point which Dr. Summons seems to have missed is the life of the miner outside the mine. His work being finished, he comes up from the hot air of the mine in wet clothes into a temperature in Ballarat of often between 30° F. and 40° F., remains in his wet clothes, makes for the nearest public-house and stops there for varying lengths of time, and then goes home, perhaps a-half to two miles, to change.

I am of opinion that a good deal of disease amongst miners could be stopped by making every miner bathe and change his clothes as soon as he reaches the surface.—I am, etc.,

MARK C. LUDWILL, M.D. (Melb.).

Beecroft, Sydney.

ACUTE LYMPHATIC LEUKÆMIA IN CHILDREN.

(To the Editor of the Australasian Medical Gazette.)

SIR,—Dr. Tange, in his paper in the last number of the *Gazette*, on "A Case of Acute Lymphatic Leukæmia in a Girl of 4½ Years," points out the unsatisfactory nature of the descriptions of leukæmia in children, as given in most of the text-books. The reason is that leukæmia in children is generally of the acute form, and this acute form was first described a few years ago, and has come into general recognition during the last four or five years only. In fact, the clear definition of acute lymphatic leukæmia is one of the triumphs of modern hæmatology.

This disease is not rare. Two examples came under my observation last year at the Children's Hospital, and I had seen several others previously. Probably such cases were looked upon as purpura or scurvy before the days of stained blood films.

Dr. Tange is to be congratulated on his energy in making a full blood examination under adverse conditions.—I am, etc., J. MACDONALD GILL, Sydney.

ACUTE TRAUMATIC ECZEMA IN OLD AGE.

(To the Editor of the Australasian Medical Gazette.)

SIR,—Will you kindly insert this in your next issue, as I wish to know if other surgeons have had similar experience. While practising in Hobart I had three cases of patients over 70 years of age on whom I

operated—one for stone (suprapubic cystotomy), one for complete removal of the testicle (castration), and one for congenital phymosis (circumcision). They all made good recoveries, but about three or four weeks after operation they all had an acute attack of general eczema, which gave me much more trouble than the operations and after treatment. I forgot to mention they all had enlarged prostates, but refused operation. I taught them to sterilise their Jacques' catheters and use them, and for years have been quite comfortable, with acid urine. Now, the question is whether the eczema was due to the operation or to the enlarged prostate. They had never had any sign of eczema before, and there was no sugar in the urine in any case. Will some of your readers give opinions.—I am, etc.,

Victoria.

H. G. H. NAYLOR.

OBITUARY.

RICHARD CORR, L.K.Q.C.P. (Irel.), 1878, Yorke's Peninsula.

We regret to record the death of Dr. Richard Corr, of Maitland, Yorke's Peninsula, which took place on March 13th. He took up his residence 25 years ago, and, except for a period of a few years when he practised at Orroroo, he had continuously resided in the district ever since. Previous to coming to this State he was engaged on several of the warships of H.M. Navy. He was 52 years of age, and has left a widow, two sons and two daughters.

ADAM JAMESON, late of Perth, W.A.

News of the death of Dr. Adam Jameson in South Africa has been received. Dr. Jameson, who was the fourth son of the late Rev. Chas. Jameson, was born in Fifeshire, Scotland, in 1860. He arrived in Western Australia in charge of an emigrant ship in 1884, and practised his profession for some time in that State. He married a daughter of the late Mr. Justice Hensman, of Western Australia. In 1893 he returned to Europe, and practised as a physician in Rome till 1897, when, on the death of his wife, he returned to Western Australia. He entered the Legislative Council of that State in 1901 as member for the Metropolitan and Suburban Province. He was attached to the Leake Ministry as Minister without portfolio, but was subsequently appointed Minister of Lands. In 1903, having received from Sir Arthur Lawley, Lieutenant-Governor of the Transvaal, the appointment of Commissioner of Lands in the Transvaal, he left for that colony, and occupied that position till the Transvaal was granted responsible government. Deceased was a second cousin of Dr. Leander Jameson, leader of the Jameson raid, and Premier of Cape Colony.

AUGUST F. G. ENGELHART, M.D. (Gressen), 1870. Dr. Engelhart, who died at Kingston, S.A., recently, had been practising there for many years. He has left a widow, a son at Millicent, and a daughter.

ELGEE, WM., L.R.C.P., M.R.C.S., 1880, of Midland Junction, W.A.

Died on March 16th. Death was due to heart failure.

WANTED, a 10 or 12 inch Coil, with or without interrupter. Particulars, A. OLLE, Charlotte St., Ashfield.

MEDICAL MISCELLANY.

THE past year was remarkable for the interest taken by the public in the subject of tuberculosis. This interest was due largely to the agency of the tuberculosis exhibits given in many cities. Numbers of people, for the first time, have had brought home to them, in a manner easy of comprehension, what this disease really is. These exhibits have shown to the public in a popular way what has been known to the profession for only a few years. Lectures, diagrams, photographs, and models of sanatoriums, tents, etc.—all have been used in impressing on the people the fact that tuberculosis is a communicable and preventable disease.

By order of the General Assembly, the State (Kentucky) Board of Health is empowered to revoke the license of any physician proved guilty of having performed an abortion, and also of any physician who becomes addicted to liquor or drug habits to a degree which disqualifies him to practice with safety to the people.

The Jefferson County Medical Society Milk Commission is now "certifying" to the purity of the milk from three dairies. The latest development in the milk situation is the advertisement by a distributor of "certified" milk, the purity of which is certified by two physicians and a veterinarian probably under salary.

Dr. F. J. W. Maguire has drafted a bill which is now before the Legislature (Michigan), proposing to make it a criminal offence to solicit a physician to perform an abortion or for anyone to procure an abortion on herself or on any other pregnant woman without the consent and advice of at least two physicians.

The eighteenth annual report of the Babies' Hospital (New York) announces that the death-rate among children under one year old in the city has fallen from 24.2 per 1000 in 1888 to 17 per 1000 in 1906, and among all children under five years of age from 101 to 55 per 1000, these reductions representing an annual saving of 4376 infants under and of 12,604 over five years of age.

During January 52 deaths from cerebro-spinal fever occurred at Glasgow, and 105 cases have been reported to the health officers. Since May 21st, when the disease was first made notifiable, until the end of December, 205 cases have been reported.

The importation of nostrums into Italy, says the *Pharmaceutische Post*, is forbidden without special authorisation by the Superior Sanitary Council. The application for such a permit must give the qualitative formula of the preparation with the place and method of manufacture (at least in outline), and the formula of constitution and doses must be placed on the package and in the directions intended for the public. The therapeutic uses must be specified, and it is forbidden to attribute to any preparation therapeutic virtues other than those which really are possessed by its components.

From the debate which took place lately in the House of Commons it is clear that the days of compulsory vaccination are numbered. Diversity of opinion exists as to what immunity from serious epidemics of smallpox is due. Some attribute it to vaccination and re-vaccination; others believe it to be due to improved hygienic conditions. Probably the honours should be divided. The motion which

gave rise to the debate was not directed against vaccination, but against the compulsory provisions of the Act.

In support of a plea of ill-health, a debtor at Clerkenwell County Court handed up a medical certificate, and said in reply to a question that he had not read it, though he could read a little. The Judge: "This is dated February 10 of this year. The doctor says, 'I hereby certify that Alfred Maggs is able to follow his employment.' He has deliberately struck out 'unable.' Did you know that?" Defendant (scratching his head): "No, sir." Judge: "Seven days."

The South African *Medical Record* is pleased to note the success of the medical candidates at the Transvaal elections, but it would have been better pleased had its *confreres* been more evenly distributed between the parties. As it is, four are Progressives and one Het Volk. It is also regretted that a doctor withdrew from his candidature as a Labour representative. All over the world Labour is most unfair of all political parties in dealing with the medical profession, and it might be an effectual corrective of this to have in its ranks a few medical men to inculcate the doctrine that a "fair wage" should not be restricted to manual labour alone.

The same journal is sorry to note a Johannesburg practitioner advertising in the public press his resumption of practice.

The famous prison of St. Lazare, which has been one of the historic landmarks of Paris, is to be pulled down, and its site to be covered with open squares and fine modern buildings. St. Lazare, as its name indicates, was built as a leper's hospital in the eleventh century, but on the disappearance of the disease from France was converted into a religious institution, and later into a prison for women.

Rats infected with the plague and having the plague flea on them are trapped by the thousands each day in Bombay, so many that it requires three or four ox carts to bring them to the laboratory. If not dead they are killed by chloroform, and the fleas on them by the same agent are simply stupefied so they can be "stripped off" and placed in a test tube. From the buboes on the rats, cervical and inguinal, cultures are made and guinea-pigs infected. The fleas are used to convey the plague by confinement in protected boxes with guinea-pigs. The results obtained seem to prove conclusively—first the rat is infected; second, the flea on the rat is infected; third, the flea getting on to a guinea-pig non-infected conveys the plague to it. The human subject is infected in the same manner by the flea by means of the dejections, as it has been observed that while biting the flea passes from the intestines its contents which infect the wound made by its proboscis.

Spain is alarmed at the presence of a few cases of bubonic plague on the Canary Islands. Energetic prophylactic measures have been enforced under the direction of an expert sanitary officer, despatched at once to the spot.

Pharmacists of Vienna are threatening to strike if their plea advocating legislation forbidding the country practitioner to dispense the medicines he prescribes is not heeded by the authorities. The medical practitioners have resolved to stop practising on a given day if the clause depriving them of their right to dispense medicines should be incorporated in the pending legislation. In many villages there is no official pharmacy.

Ernst von Bergmann and Modern Surgery.

(THE EMINENT SURGEON DIED MARCH 27, 1907)

DURING the latter days of August a number of French medical gentlemen were making a tour of inspection through Berlin, and an opportunity was afforded them of witnessing an operation which was being performed by Professor von Bergmann. The visitors were astonished at the certainty of manipulation, the extraordinary experience, and the calm of manner displayed by this, the greatest of all German operating surgeons. And yet the operation was carried out by a septuagenarian, for on the 16th of September following, Ernst von Bergmann was able to look back on seven complete decades of his life. But he had known how to unite the ripeness of age with the daring of youth, down to the last.

For 56 years he has exercised his calling as a surgeon, he having entered the surgical department of the Dorpat Infirmary as assistant in the year 1850. In those days surgery was the woe-begotten offspring of the healing art. Every operation was, more or less, a last despairing cast of the dice, depending solely upon the dexterity and the good luck of the practitioner, for one was in no sense master of the dangerous consequences of putrid infection of the wound.

In a great number of hospitals these wound-illnesses had become positively epidemic, and only the utmost despatch and presence of mind on the part of the operator could offer him even the probability of a successful issue. Bergmann possessed these qualities, but he did not content himself with them; rather did he busy himself at once with making continuous onslaughts on the great enemy of surgical practice—he sought to discover the origin of septicæmia, and was successful in finding out a chemical body which, for a considerable period, was looked upon as the existing cause of wound-fever.

If, since that time, the discoveries of Pasteur and of Koch have taught us to know better, still Bergmann's theory that wound-fever was a kind of poisoning has been upheld. Then followed the great achievement of Lister, whose treatment opened up a new era for surgery. Bergmann was, from the very first, one of his most enthusiastic adherents, and afterwards became one of the foremost amongst those who carried on Lister's work. For, in the first place, he took a most important part in replacing the original antiseptic treatment by a complete aseptic one; secondly, he recognised the dangers arising from the use of carbolic acid, the antiseptic originally employed by Lister, which was very apt to set up irritation, and the copious employment of which was associated with the danger of poisoning. He succeeded in supplanting the carbolic acid by the sublimate of mercury, and thus discovered the most reliable antiseptic which is known up to the present day.

Modern surgery has, in consequence of the recognition of these facts, and the advances made in practice, been completely revolutionised. Now, for the first time, the ground was prepared upon which the genius of the operating surgeon could, with certainty and freedom, develop and manifest itself, and at the same time the sphere of activity of the surgical art was very considerably enlarged.

Many cases could from this time forward be entrusted to the surgeon's knife which formerly were of necessity left to the physician, and it frequently occurred that the scalpel was able to effect a complete cure, where the application of internal remedies had only succeeded in ameliorating the condition of the patient.

In this branch of medical science Bergmann attained a position of extraordinary and unparalleled superiority. But he did not belong to the ranks of those who are merely surgeons and nothing more. He was, at the same time, both a physician and a scientific pioneer. He has never fallen into the fatal error of becoming a specialist in the narrower sense of the word, and he has always been most careful not to claim more than its due for the surgeon's knife.

In his work dealing with injuries to the head, he has proved himself to be an excellent diagnostician, and both in this book and in his treatise on "Diseases of the Brain," published in 1883, he has disclosed a thorough and all-round medical knowledge.

If to-day, in consequence of the exact knowledge we possess of the functions of the nervous system, combined with a study of the pathological symptoms, we are enabled to ascertain, with some degree of certainty, the seat of a morbid change in brain or spinal cord, yet it is Bergmann we have to thank as having been one of the first who dared to lay bare the brain, to open abscesses occurring on the brain or in one of its two protective coverings, or to provide an outlet for the pus which had collected deep down in the substance of the brain itself.

Bergmann owed much of his surgical experience to the great school of modern German surgery—war. In 1866 he was in the field hospital at Koeniginhof, in Bohemia; during the Franco-German war of 1870-1871, he was chief of the military hospitals at Mannheim and Karlsruhe, and later he took part in the Russo-Turkish war of 1877-1878.

By birth a Russo-German, he was, until 1871, a University Professor at Dorpat. In 1878 he succeeded Linhard at the University of Wurtzburg, and in 1882 Langenbeck's chair at the Berlin University was entrusted to his charge. Here he took an especially lively interest in the great work of reorganising the post-graduate education of medical students and of practitioners in general, for he saw clearly that the great and ever-widening field of knowledge and the complex technicalities of medical science made quite new demands on the professional education of practitioners.

The crowning result of his labours in this direction is to be seen in the newly-opened Kaiserin Friedrich House, a magnificent educational institution and museum for furthering and advancing the post-graduate medical instruction, which is perhaps unequalled anywhere, and which excited the keenest admiration of the French doctors.

It is to Bergmann's philanthropic activity that the city of Berlin owes the organisation of its first-aid stations, by the help of which the quickest possible assistance is enabled to be rendered in cases of accident in any part of the city.

AUSTRALIAN UNIVERSITIES.

Melbourne University Senate.—Original Research.—A meeting of the University Senate was held on March 31st. The warden (Dr. McInerney) presided. It was proposed that the final honour scholarships in connection with the degree of Bachelor of Arts and the Wysealskie scholarships be brought into line with the scholarships connected with the degree of Bachelor of Science. In the latter, it was explained, there is a provision that a successful scholar shall devote a certain

amount of time to original research in the department of the University in which he has taken his scholarship. In regard to the B.A. scholarships, the proposal was that payment of one-third the amount be withheld until it is certified that the scholar has carried out an investigation in some approved branch of study, unless during the year he has completed a year of a course for a degree, or has obtained honors at a final honor examination, or unless the faculty, for special reasons, dispenses with the requirement. Similar conditions were framed in connection with the Wyseleskie scholarship, with the stipulation that no payment be made on account of any year of any scholarship the holder of which has completed his third year, unless the conditions are fulfilled. On the motion of Professor Baldwin Spencer, regulations embodying the proposals were adopted. The senate, on Professor Allen's motion, passed regulations providing that the final examinations for the fifth year in the medical school shall commence a fortnight earlier than at present; that the number of lectures in medicine and surgery be reduced from the existing number (about 100) to about 90, and that clinical medicine and clinical surgery be made separate subjects, with separate boards of examiners. Final Honor Examination, 1907.—*Medicine and Obstetrics*.—First Class: Margaret Jamieson, H. B. Devine (Q.), J. W. Dunhill (Q.), D. M. McWhae. Second Class: C. I. McLaren, T. S. Hutchings (Q.), H. Blaubaum (Q.), M. D. Silberberg (Q.), J. A. Opie, J. J. L. Gill, E. R. White (T.), A. F. Maclure (O.), E. P. Oldham, G. A. Paton (O.). Third Class: H. W. Sweetnam (O.), J. Ward (T.), Muriel K. Davies (T.), Ethel Good, Viva St. George Sproule, R. G. McLay (O.). The scholarship is awarded to Margaret Jamieson. *Surgery and Gynaecology*.—First Class: H. B. Devine (Q.), Margaret Jamieson, McWhae, J. W. Dunhill (Q.). Second Class: M. D. Silberberg (Q.), T. S. Hutchings (Q.), E. P. Oldham, A. F. Maclure (O.), Muriel K. Davies (T.) (equal), C. I. McLaren, G. A. Paton (O.), J. J. L. Gill, H. Blaubaum (Q.), J. Ward (T.), Ethel Good. Third Class: H. W. Sweetnam (O.), E. R. White (T.) (equal), J. A. Opie, Viva St. George Sproule, R. G. McLay (O.). The Beane scholarship in surgery and gynaecology is awarded to H. B. Devine (Q.); *proxime accessit*, Margaret Jamieson. *Therapeutics, Dietetics and Hygiene*.—First Class: None. Second Class: J. Ward (T.). The scholarship for therapeutics, dietetics and hygiene is awarded to J. Ward (T.). Supplementary Pass Examination.—Fifth year medicine: Passed (13)—H. S. Bourke, Sarah M. Campbell, J. Catarinich, J. I. McL. Chirnside, G. W. Deravin, Ellen E. Henry, O. Joynt, M. A. Ley, F. H. Looney, Viva St. George Sproule, H. W. Sweetnam (O.), J. Ward (T.), E. R. White (T.). Examination for degree of doctor of medicine: By Thesis.—Subject of Thesis, Miners' Phthisis.—Passed (1): W. E. Summons (O.).

A phenomenal increase in the number of first year students at the Melbourne University was reported to the meeting of the council held on April 8th. The council made the following scholarship awards:—Caroline Kay scholarship in anatomy, Dr. W. C. McKenzie; Beane scholarship in pathology, Dr. S. B. Sewell; University scholarship in physiology, Mr. G. E. Matterson. Dr. Sewell was appointed senior demonstrator in pathology, and Professor Allen was given authority to invite applications for the position of junior demonstrator at a salary of £100 for the year. Dr. J. T. Murphy and Dr. A. H. D. Robertson were appointed demonstrators in anatomy.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, the Medical Officer of Health, reports for the month of March, 1907:—The deaths registered in the metropolitan municipalities numbered 377, exclusive of those in the Gladesville and Callan Park Hospitals for the Insane. This figure is considerably below the average number of deaths in March during the five preceding years, and is equal to an annual mortality rate of 8.14 per 1000 of the estimated mean population for the year. When corrected by the inclusion of the metropolitan proportion of the deaths in all the benevolent and lunatic asylums of New South Wales, it is equal to a rate of 8.80 per 1000. The deaths from diarrhoeal diseases numbered 41, which is the lowest record in March for over 10 years. The figures include one death from diarrhoea and 40 from enteritis. Infectious diseases, other than diarrhoea, caused 25 deaths. Whooping-cough was again very fatal, causing 13 deaths, of which 10 were infantile. Scarlet fever, diphtheria, and cerebro-spinal fever were each responsible for one death. Typhoid fever caused five deaths, and plague and puerperal fever each caused two deaths. Phthisis was more fatal than usual. It caused 39 deaths, compared with an average for March in the five previous years of 27. Cancer and Bright's disease, with 35 and 25 deaths respectively, were both less fatal than usual. The mortality from diseases of the heart and blood vessels was 36, compared with an average for the month of 52. Respiratory diseases were responsible for 31 deaths, of which eight were due to bronchitis and 21 to pneumonia. The latter disease was more fatal than usual, the average number of deaths from this cause in March having previously been 15. Deaths of infants numbered 93, which is equal to an infantile mortality rate of 84 per 1000 births—the lowest on record for the month of March. The most important causes of infantile deaths were:—Whooping-cough, 10; prematurity, 16; developmental diseases, 15; respiratory diseases, 10; diarrhoeal diseases, 30. The incidence of notifiable infectious diseases upon the metropolis for March was very low; 48 attacks of scarlet fever, 27 of diphtheria, and 45 of typhoid fever were notified. In the case of the two last named disorders, the numbers were the lowest on record for the month of March. Of bubonic plague, 10 cases occurred. Within the city of Sydney seven cases of pulmonary consumption were notified under the City Council's by-laws; nine dwellings were disinfected after occurrence in them of deaths from consumption, and four dwellings after removal from them of living consumptives.

Metropolitan Meat Supply.—A return furnished to the Board of Health shows that during February a total of 88,705 beasts of all descriptions passed through the butchers' hands at the abattoirs, under the board's inspection. Of these 5639 were beeves, 1391 calves, 6828 pigs, and 74,847 sheep. Forty-four beeves were condemned as being affected with tuberculosis, and two as unfit for food. About 14 per cent. of the calves, or a total of 275, were classed as unfit for food, and prevented from going into consumption, while 175 pigs and 56 sheep were condemned. Of the pigs, 150 were found to be affected with tuberculosis, 19 were unfit for food, and 6 were suffering from abscesses. At suburban slaughter-houses 4263 beeves, 71 calves, 1799 pigs, and 94,222 sheep, making

a total of 100,355 head, were slaughtered, and 27 beeves, 66 pigs, and 102 sheep were condemned. The pigs slaughtered at five bacon factories in country towns during the month numbered 3844, of which 189 were condemned, 182 on account of tuberculosis, two suffering from pneumonia, and the others as unfit for food.

Breach of Plague By-laws.—One of the first cases under the recently gazetted plague by-laws was heard last month at the Glebe Police Court, when a wholesale and retail butcher carrying on business at Leichhardt was proceeded against, at the instance of the Leichhardt Municipal Council, for having allowed a quantity of refuse to remain on his premises in such a manner as to encourage rats or other vermin to congregate there. The inspector's report showed that he found a tub of putrid tripe and fat on the floor uncovered, a quantity of putrid sausages, two large baskets of bones, meat, and fat on the floor uncovered, bullocks' livers on a stand 1 foot from the floor, a large quantity of bones, meat, etc., scattered about the floor, which gave out an offensive smell. A large basket of putrid meat sausages was also seen, and on the floor were uncovered bags of bones giving off an offensive odour. A large cutting table was filthy with fat, etc., and scraps of meat were on it. The sausage machine was very dirty. Four large tins of fat were on the floor uncovered, with traces of rats. A cask of flour was uncovered. Meat was exposed to rats. Several sucking pigs were in a room at the rear of the shop, and were creating an offensive smell, while the whole of the back premises, used for cutting and salting, were in a dirty condition, fat and scraps of meat were scattered about the floor, and the sides of the walls and blocks were dirty and covered with fat. The inspector also found a jar of formalin and a cask of sulphide of lime on the premises. Defendant pleaded guilty. The inspector stated that he had warned him repeatedly. He was fined £5 and costs £1 7s, in default imprisonment for two months. The defendant was then charged with having on March 6th kept swine on his premises, which were within 40 yards of Parramatta-road, Leichhardt. He pleaded guilty to this charge also, and was fined £1 and costs £1 7s, in default imprisonment for 14 days.

Sanitary Condition of Kempsey.—A letter has been received by the Board of Health from the

Mayor of Kempsey, conveying a resolution of the council sincerely thanking the board for its valuable assistance in the recent outbreak of plague. The Mayor has been commended for his energetic and effective action, and informed of the board's hope that, in addition to the introduction of the improved pail service, which it was glad to note, the council had decided to adopt, it would also for the future maintain the district at a much higher standard of cleanliness than it had before the late outbreak. The council was specially recommended to provide itself with a properly instructed and efficient sanitary inspector.

The Sydney Water Supply.—Dr. Stokes, Medical Officer for the Board of Water Supply and Sewerage, reports as follows:—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, March, 1907:—

Colour	.. ..	14° Brown.
Clearness	.. ..	Marked
Odour	.. ..	Nil.
Suspended matter	.. ..	Slight.
Total solids	.. ..	9.7000
Chlorine	.. ..	3.2000
Free ammonia	.. ..	.0000
Albuminoid ammonia	.. ..	.0095
Nitrogen as nitrites	.. ..	.0000
Nitrogen as nitrates	.. ..	.0071
Oxygen absorbed in 15 minutes	.. ..	.0198
Oxygen absorbed in 14 hours	.. ..	.0529
Permanent hardness	.. ..	1.1
Total	.. ..	1.7

NOTE.—Parts by weight per 100,000.

2. Bacteriological examination of samples of water as it leaves the Catchment area, and from the canal, March, 1907:—

	Average No. of Bacteria per c.c. growing at		Ratio.
	37° C.	Room tem.	
Cataract River at Broughton's Pass	134	152	1 : 1.14
Outlet Nepean Tunnel	162	254	1 : 1.56
Canal at Kenny Hill	269	520	1 : 1.93

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during March, 1907:—

Final Effluents from —	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification.		Incubator Test. Seven days at 57° C
			Total Solids.	Chlorine.	Free Ammonia	Albuminoid Ammonia.	Nitrogen as		Oxygen Ab- sorbed in		Albuminoid Ammonia.	Oxygen ab- sorbed in Four hours.	
							Nitrites.	Nitrates	Three Minutes.	Four Hours.			
Chatswood ..	.. Slight	Nil	32.2	9.8	1.515	.160	.005	.695	.168	.600	86.8	80.4	No decomposition
Folly Point..	.. Faint	Nil	56.2	10.0	1.897	.075	.022	.697	.135	.577	94.8	82.6	“ ”
Balmoral ..	.. Faint	Nil	33.8	9.2	.456	.120	.025	.817	.226	.872	82.7	50.0	“ ”

Victoria.

Cerebro-Spinal Meningitis.—Two cases of cerebro-spinal meningitis, which has lately caused heavy mortality at several towns in Great Britain and on the Continent, have occurred in Melbourne. The subjects were children, one of whom, aged between 3 and 4 years, died some time after it had been discharged from the Children's Hospital. The second patient recovered. Dr. Norris, chairman of the Board of Health, made the following statement with regard to the cases: "The board has no official word that there is any tendency towards what can be called an outbreak of the disease. Cases of cerebro-spinal meningitis are not necessarily of an epidemic variety. As a rule that variety is associated with a low sanitary or unwholesome conditions of living. Sporadic cases, which have occurred in Victoria from time to time, have not been found to be specially associated with such conditions. They are probably secondary to other diseases, and may occur in the course of other germ diseases. An officer of the board is now inquiring into the matter."

South Australia.

Health of Kensington and Norwood.—Dr. T. Borthwick, the Health Officer, has furnished the following report on the public health of the town for the year ending September 30th, 1906:—**Population.**—On January 1st, 1906, the population was estimated to be 12,958, or an increase of 142 on last year. **Births and Deaths.**—There were registered during the year ending September 30th, 240 births and 121 deaths, giving a natural increase of 119, as compared with 162 for the preceding 12 months. Taking the above population, the birth-rate and death-rate are thus respectively 18.5 and 9.3 per 1000. **Infant Mortality.**—Of the 121 deaths registered, 13 were under one year of age. This represents a mortality of 5.4 per 100 births, a considerable reduction on the rates for the last five years. **Cause of Deaths.**—During the year the number of deaths from diarrhoea and dysentery was 4, diseases of respiratory system 11, phthisis 9, diseases of circulatory system 17. **Infectious Diseases.**—The new Health Act has been in operation for nearly seven years, and by it certain infectious diseases are rendered compulsorily notifiable by medical men as well as by the householder. There were reported during the year 5 cases of enteric fever, 30 of scarlet fever, 4 of diphtheria, 5 of erysipelas, 1 of puerperal fever, 1 of cerebro-spinal meningitis, and 26 of pulmonary tuberculosis. These figures have been supplied by the trained nurse of the East Torrens County Board of Health, which has now the administrative control of infectious diseases in the town. Thirty-five houses have been disinfected under the nurse's supervision. **General Remarks.**—The sanitary condition of the town has been maintained by the usual inspection and attention to sanitary conditions.

Central Board of Health.—At a meeting of the Central Board of Health held on March 20th, a letter was received from the principal medical officer of the Medical Department, Perth, Western Australia, who stated that on and after May 1st next bonedust certificates were required, and must show that the disinfection of bonedust under steam had been done in the presence of a Government inspector, whose signature must be inserted on the document. He also forwarded copy of a certificate he had received, and asked if the disinfection was carried out in the presence

of one of the board's officers or other State officer. To be informed that disinfection was not carried out in the presence of any of the board's officers. The board decided that an officer would be available if required.

Queensland.

Bubonic Plague.—Report for the four weeks ending April 6th, 1907:—**Brisbane.**—Remaining under treatment, 4; admitted during period, 1; died during period, nil; discharged during period, 2; number of cases to date, 25. No case of plague has occurred in Brisbane since March 17th, 1907. Last infected rat, March 9th, 1907. Plague in rodents: Rats destroyed, 2309; mice destroyed, 238; rats examined, 1410; mice examined, 172; rats infected, 1; mice infected, 1. Case 26: M.M., male, *æt.* 23 years, residing Princess-street, off Petrie-terrace, city, employed at a saddler's shop, Petrie-bight, city. Attacked March 10th; removed Plague Hospital March 12th, type, bubonic. Case 27: W.N.T., male, *æt.* 48 years, employed at a hotel in the Valley. Case reported from General Hospital, March 17th; type, bubonic. The hotel is situated in the same block where two previous cases came from. A plague-infected rat was found in this block on February 12th. **Plague in the North.**—(a) A fatal case of plague, reported after death, occurred at Townsville on March 17th. Patient, a man, *æt.* 33 years, employed at New Zealand Bond (produce); type, bubonic. It is stated that dead rats were found at the store. Bacteriological examination of post-mortem specimens revealed presence of *B. pestis*. **Port Douglas.**—The Health Officer, Port Douglas, reports the admittance of six fresh cases to hospital during the period. Four of the cases were of a very mild type, and are now convalescing. Type, bubonic. There were eight patients in hospital on March 8th. Rats have been seen sick and dying in the cane fields of the Mossman district. No further development at Port Douglas (Mossman). There are two patients remaining in hospital.

Tasmania.

Vital Statistics.—The Government Statistician's report on the vital statistics of Hobart and Launceston for February, 1907, shows that during the month of February 116 births—58 males and 58 females—were registered in the registration districts of Hobart and Launceston. This is 26 less than the corresponding month of last year, and a decrease of 12 as compared with the average of the births registered in February during the last five-yearly period. The deaths registered in February in Hobart and Launceston numbered 61—32 males and 29 females; 13 deaths, or 21.31 per cent. of the whole, took place in public institutions. The total number of deaths registered in the two districts during February, 1907, is 28 less than in the corresponding month of last year, and shows a decrease of 19.4 as compared with the average number of deaths registered in February during the last five-yearly period. The deaths under five years of age numbered 19, or 31.15 per cent., 16 of which were under 1 year of age; the deaths between 5 and 65 years of age numbered 30, or 49.18 per cent.; and the deaths 65 years and upwards numbered 12, or 19.67 per cent. In the country districts the births totalled 316, as compared with 247 for February, 1906. The City Health Officer (Dr. G. Sprott) reports that during the month of February there were 32 deaths in the registration district of Hobart, but three of these

were of persons not usually resident in the district. In the city proper there was a death rate of 8.28 per 1000 per annum. The principal causes of death were:—Phthisis, 2; cancer, 1; enteritis, 3; nephritis, 2; senility, 3; drowning, 1; and the remainder were of a general character. There were nine cases of enteric fever and one of diphtheria notified during the month.

Infantile Mortality in Tasmania.

SOME time ago the Hobart Board of Health directed the City Health Officer (Dr. G. Sprott) to report on the subject of "Infantile mortality and its prevention." Dr. Sprott has submitted the following report on the subject:—

"Before proceeding to deal with the prevention of infantile mortality it might be well to point out that this subject is now receiving the attention not only of the municipal authorities, but also that of statesmen and political economists. Less than 12 months ago a national conference was held in London, presided over by the Right Hon. John Burns, president of the Local Government Board of England. In the course of his address he stated that two out of every four deaths in infants were preventable, and that '100,000 infants died annually in the United Kingdom from neglect, carelessness and thoughtlessness.'

"Dr. Muskett (Sydney), who has taken so much interest in this subject, has shown in his last publication that during the 19 years 1887 to 1905, 91,290 infants died under one year of age in the six capital cities of the Commonwealth. For the same period Hobart contributed 2777 and Launceston 1894 deaths under one year of age.

"If we take the figures for all the States of the Commonwealth and New Zealand, Dr. Muskett shows that in 22 years, 1884 to 1905, there were 341,578 infants who died before they reached the age of two years, while the death rate at all ages only reached 1,123,896. In other words, one-third of all the deaths occurred in children under two years of age.

"In Tasmania, Dr. Elkington (Chief Health Officer), in his report for 1906 states that for the years 1903-04 and 1905 the total number of births was 15,629, and the total deaths under one year of age was 1462. This means that for the whole of Tasmania for every 1000 born 94 die before they attain the age of 12 months.

"It is a significant fact that whilst the death rate per 1000 births averaged 94 for the above three years, the average death rate for legitimate children was 86, as compared with 218 per 1000 births of illegitimate.

"In Hobart city the total number of births for 10 years, 1897 to 1906, was 7370, and the total number of deaths of infants under one year of age was 936. For the same period the average death rate per 1000 born was 127.

"While these figures show the great wastage of infant life that obtains everywhere, it must not be supposed that any measures that may be taken can do more than reduce the mortality by a certain percentage, varying with local conditions.

"There will still be an 'unavoidable' death rate of infants. It is estimated that about 6 per cent., or 50 per 1000, infants are born prematurely, congenitally weak, or with malformations which speedily terminate their lives, while a percentage dies in spite of every care and attention that can be given.

"The death rate will vary much according to circumstances. In some of the industrial cities in the north of England, where the working mother is unable to give

the infant proper attention, the death rate goes up to 200 and more per 1000, while in the city of Croydon it has been proved that the death rate of infants whose parents live in houses of five or more rooms, does not exceed 50 per 1000. In short, the 'unavoidable' death rate in an industrial city should not exceed 100 per 1000, and in Hobart 50 per 1000 births.

"A reduction of this mortality by 50 per cent. is surely a matter of the greatest importance in Australasia, where the sparsity of the population is becoming such a serious matter, as evidenced by the efforts to secure immigration. It is generally admitted that the wealth of a nation depends not on the richness of its agricultural lands, nor on the richness of its mineral deposits, but that it does consist in the people inhabiting the country. Every life has its value to the State. It follows, therefore, that it is the duty of the State and the local authorities within the State to take every means possible to protect the life of every infant born.

"I do not intend, however, to deal with the subject in its many aspects, but shall confine myself to the means which might reasonably be adopted as a part of municipal sanitation.

"What, then, is the duty of the local authority to prevent this infantile mortality?

"1. Good sanitary surroundings must here have a beneficial effect on this factor of the death rate, as well as on the general death rate. Better dwellings for the poorer classes, more ventilation in the houses, good drainage, cleaner and drier back yards, with more air spaces, have either a direct or an indirect influence for good, but while our public health administration has by careful attention to the above reduced the general death rate by 30 per cent., the infantile death rate remains practically the same.

"Dr. Collinridge (City Health Officer of London) has shown that while the general death rate in London in 1881 was 34.7 per 1000, in 1904 it was only 16.6 per 1000. In the same years the death rate per 1000 infants born was 188.1, 148; in 1904, 144 per 1000.

"2. Milk Supply.—One of the principal factors in the prevention of infantile mortality is a pure milk supply. It is the duty of the local authority to insist upon milk vendors supplying pure milk to the public. Regular and frequent inspection of milch cows and cowsheds, to see that the by-laws are carried out, must be made. Samples must be taken at frequent and irregular intervals. Cowkeepers who do not keep their premises clean should be refused a license. Milk vendors who adulterate milk should be prosecuted with the utmost rigour of the law, and, on conviction, their license withdrawn.

"In many of the larger cities of the United Kingdom the milk supply has become such an important factor that municipal milk depots have been established, and with considerable success. Such depôts exist in Glasgow, Dundee, Leith, St. Helen's, Liverpool, Burnley, and York. A constant and careful supervision of our milk supply will for the present do away with the necessity of establishing a municipal milk depot.

"3. Perhaps the greatest factor in the destruction of infant life is want of knowledge as to the feeding and management of infants.

"If mothers would only realise their maternal duty, much wastage of infant life would be stopped. It is a regrettable fact that maternal nursing is gradually diminishing, especially in the cities. It is lamentable to know from one of the highest authorities (Holt) that in his experience amongst the higher classes of society not more than 25 per cent. have been able to nurse

their babies for as long as three months, and an 'intellectual city mother who is able to nurse her child successfully for the entire first year is almost a phenomenon.' But, since the upper classes do not, and the poorer are unable (owing to the necessity of having to earn a living), artificial feeding has to be resorted to.

"It is to mismanagement of artificial feeding that much of the destruction of infant life is due, and the question arises, how is this to be overcome? There are two methods advocated—(1) By lectures to young girls and women on household and domestic hygiene, cooking, and the preparation of various kinds of food for infants; and (2) by distribution of leaflets of instruction dealing with the various difficulties which young mothers may meet with in the management of the baby, in health and in sickness.

"The first part has already been initiated by the Department of Public Health, and might be confidently left in the hands of the Chief Health Officer. His efforts might be supplemented by the various philanthropic societies, such as the Women's Health Association, the National Council of Women, etc., and the local authorities should assist in every way possible, monetarily and otherwise.

"With regard to the second part—the distribution of leaflets of instruction—no better or more complete leaflet than that by Dr. Elkington on the 'Feeding and care of Babies,' could be issued. The local authority might well have this leaflet printed on cardboard, and distributed to every house in the city, care being taken to see that it is hung up on the wall. The lady inspector under the board could well undertake the work of distribution, and explain it carefully to mothers in special cases. District nurses and midwives might be asked to assist.

"Other leaflets, dealing with infantile diseases, how to prevent them, and the household remedies to be used, etc., will no doubt be issued and distributed from time to time.

"The establishment of crèches has become a necessity in some French cities, but in England day nurseries are the only places where mothers may leave their children during the working hours. These day nurseries are for the most charitable institutions. Already in Hobart there is a crèche, which I believe is doing good work by caring for infants whose mothers are compelled to go out to work, and while this is admirable in itself, the crèche might be used still further as an institution where practical teaching could be given to young women in the care and management of children. If this were done the local authority might assist the management by a remission of rates, etc.

"As a very large proportion of the deaths occurs amongst the illegitimates, special measures should be taken to protect them. Our present Public Health Act does to some extent provide for them, but it is not far-reaching enough. It should be obligatory on every person who takes charge of one or more infants for fee or reward to be registered. At present only persons who take more than one infant need be registered. This practically makes the law a dead letter. In Hobart there are only four persons so registered, and at the present moment only three infants can be inspected by the authorities. The local authority should visit and report on the condition of these children at frequent and regular intervals, and if the person under whose charge these infants are is negligent or careless, her name should be struck off the register. Every death that takes place amongst these children should be notified to the local authority, and if necessary that body should request the coroner to hold an inquest.

"I have merely touched the fringe of this vast and important subject, and while municipal authorities may do much, they cannot do all. Much depends upon the moral, intellectual and social advancement of the people.

"As vice, intemperance, ignorance and poverty decrease, so also will the death rate of infants."

Plague in New South Wales.

SYDNEY.

SINCE our last issue the following cases have been notified:—(31) F. McD., male, *æ*t. 36, a hawker of hardware. This patient resided at a model lodging-house which was free from infection; he had been drinking for several days, and sometimes slept at his lodgings, sometimes in the parks; he could give no account of his illness, nor any further account of his movements; right femoral bubo, films and cultures positive. (32) T.R., male, *æ*t. 37, labourer. Resided at Chippendale, within the city. He was out of employment, and in looking for work visited at least one dangerous place. (33) M.L., male, *æ*t. 20, single, was a bar-cleaner, who visited many hotels in the way of his business, among which was one from which a plague rat had been taken. For four days before attack he was permanently employed at an hotel which appeared on search to be free from infection, although infested by rats to some small extent, and which stood in the immediate neighbourhood of other buildings from which plague rats had been collected during a few weeks preceding. (34) E.L.D., female, *æ*t. 46, widow. This patient was the mother of S.C.D. (case 29), who died on March 7th, and who was infected at some place untraced, which was not her place of employment, and apparently was not her dwelling. Attacked March 16th, suddenly (as is most usual), about 3 p.m. Systematic search of the neighbourhood failed to discover infection among the rats which, moreover, were not numerous. (35) E.P.R., female, *æ*t. 27, single; residence, North Sydney; attacked March 21st; she visited Sydney daily by ferry, crossing a wharf at which plague rats had been recently taken. On March 20th she visited a w.c. on this wharf; a plague rat had been discovered behind the wainscoting of that w.c. four days earlier. (36) W.G., male, *æ*t. 67, bricklayer; residence at Waterloo. Suddenly attacked April 22nd, afternoon; notified after death on the 28th. Diagnosis confirmed post-mortem. From the 11th to the 16th (Saturday) was out of work; from the 18th to the 22nd worked at blocking a disused lift-well at a soft goods warehouse, where nothing suspicious was detected, but which stood on the slope to Darling Harbour, and in the neighbourhood at present regarded as infected. (37) E.W.E., male, *æ*t. 18, a labourer, employed on a wharf from the immediate neighbourhood of which plague rats had been, and still are being obtained; sick rats had also been seen at the office to which he went for orders. Plague was identified in one carcase taken there and submitted on April 6th. (38) F.W.G., male, *æ*t. 26, single, a plumber; on the day of attack began work at an ironfoundry in Redfern, but for 10 days before had been out of work and wandering about the city. Attacked suddenly on April 9th, at 7 p.m. Enquiry into this case and special measures taken on the area referred to in connection with the preceding case were proceeding at the date of this return. All the patients were removed to the Coast Hospital, as usual, within a few hours of their notification.

HOSPITAL INTELLIGENCE.

Royal Alexandra Hospital.—The 27th annual meeting of the Royal Alexandra Hospital for Children, Sydney, was held on March 27th. The annual report gives the following statistics for the year 1906:—General hospital: Admitted 671, making, with the 34 remaining from the previous year, a total of 705 patients under treatment. Of this number 435 were discharged cured, 136 were relieved, 48 were unrelieved, 56 died, and on December 31st 30 were remaining in the hospital. The death-rate in the general hospital was 7.9, as against 9.1 on the previous year. Diphtheria branch: Admitted 154, making, with the 5 remaining from the previous year, a total of 159 patients under treatment. Of this number 53 were discharged cured, 85 were relieved, 1 was unrelieved, 15 died, and on December 31st 5 were remaining in the wards. The death-rate was 9.4, as against 7.5 in the previous year. The number of administrations of antitoxin was 327; 84 patients were sent to the Coast Hospital. Out-patients' department: 31,390 attendances of 7682 patients. Convalescent Cottage, Camden: Admitted during the year 85, making, with the 11 remaining from the previous year, a total of 96 patients under treatment. Of this number 56 were discharged cured, 24 were relieved, and 3 unrelieved, 1 died, and on December 31st 12 were remaining in the cottage. In the report for the year 1903 it is stated that by arrangement with the Government they took back the dedicated site at Paddington, and granted £5000 towards the purchase of the Camperdown site. To this £5000 the board added £1000, thus completing the amount of purchase money of the present site. The cost of the land and building, including the furnishing and the laying out of the grounds, has been £48,000, towards which the sum of £28,000 was received from the public in donations, etc., and in addition to the £5000 above referred to £8000 was received from the State Government. The president, Dr. Clubbe, in moving a vote of thanks to the Lord Mayor for presiding, said that in the Royal Alexandra Hospital they had one of the finest children's hospitals in the world. For many years they worked under many disadvantages in small, cramped quarters at the Glebe. Now they had an up-to-date hospital, equipped in every way. It had cost a large sum of money and they still needed a sum of £7000. That was not all. The hospital would not be complete till a nurses' home was built, for which a further sum of £7000 would be required. Then, in addition, they had a large out-patient department in Valentine-lane, where 120 patients were seen every day; and it was now so overcrowded that an enlargement was necessary in the interests of good work. Another storey must be added, and they would need at least to expend £2000. They owed £7000; they wanted £7000 for a nurses' home; they required £2000 for the alterations at Valentine-lane; they actually needed £16,000. The annual expenditure had been £8000; now it would be at least £10,000. That would be 200,000 shillings every year, or 2,400,000 pennies. If every child in the State were to give one penny the £16,000 would be in the committee's hands. The hospital was not managed for the benefit of the committee or for the benefit of the honorary medical staff, nurses, or the board. It was managed for the people and the children of the people. Therefore the people should come forward and support their own hospital.

Alexandra Hospital for Women, Hobart.—The ceremony of laying the foundation-stone of the Queen Alexandra Hospital for Women, Hobart, took place last month in the presence of a large and representative gathering of ladies and gentlemen. The Premier said he had a very pleasant duty to perform in calling upon the Lady Edeline Strickland to lay the foundation-stone of the Queen Alexandra Hospital for Women. On June 6th, 1902, the first meeting of ladies was held to form a collecting committee. On July 25th of the same year the Coronation Ball was held, and a sports meeting followed on August 16th. Then a succession of entertainments was arranged, and in the following year Hospital Saturday was instituted. Concerts had been given in the country districts also in aid of the funds of the proposed institution. Subsequently the committee was reorganised, and the gentlemen who had heretofore taken part in the work retired. At that time about £840 was in hand. The hospital collections had added about £400 to that sum. Since Lady Edeline Strickland had interested herself in the work of the committee fresh efforts had been made with the object of raising the funds necessary for inaugurating the institution. After remarking on the danger of so many institutions, all having laudable objects, being started as to overtax the giving powers of the charitable public, the Premier enlarged upon the importance of the work which would be undertaken by the Alexandra Hospital, and on its claims upon the community at large. The Premier concluded by calling upon the Lady Edeline Strickland to lay the foundation-stone. Her Ladyship spread a little mortar with a silver trowel, and the stone having been lowered and adjusted, struck it a few blows with a mallet. She then declared the stone well and truly laid. The stone bore the following inscription:—"Foundation-stone of the Queen Alexandra Hospital for Women, laid by the Lady Edeline Strickland, March 6, 1907." A sum of £33 3s 6d was laid on the foundation-stone. When completed, the hospital itself will be an imposing block of brick buildings. The new portion will comprise three wards on ground floor, and requisite service arrangements; while the first floor will consist of five private rooms. The bathrooms, sterilising rooms, and lavatories will be semi-detached from the main buildings, and approached by the latest improved cross ventilated corridor. A small isolation ward will be situated at the rear. All the sanitary fittings will be modelled on the latest types approved by the highest health authorities, Dr. Elkington having been consulted in regard to these matters. The wards are to have no projections on which germs and dust may accumulate, and the angles of walls and ceiling are all being rounded off. The exterior will be plain brickwork, with little expenditure upon ornament.

The Women's Hospital, Sydney.—At the last monthly meeting of the board of directors the matron's report for the month of February showed: Patients treated, indoor, admitted 33, discharged 27, remaining in the hospital 29 and 7 infants. Births, indoor 13, outdoor 35, a total of 48. Seventy-nine patients were treated at the out-patients' department. Mrs. Kelly intimated that progress had been made with regard to the "Literary Pageant Ball," to be held in aid of the funds of the hospital.

St. George's Cottage Hospital, Sydney.—At the meeting of the committee of the St. George Cottage Hospital last month it was resolved—"That this committee most emphatically protests against

PERSONAL ITEMS.

On March 23rd a number of officials, members, and supporters of the Norwood Football Club met at Ware's Exchange Hotel to say farewell to Dr. D. Dawson, who will shortly take up his residence at Laura, S.A., and to congratulate him on his approaching marriage. On behalf of the members and friends of the club, Mr. C. Hobbs presented Dr. Dawson with a set of dinner knives. Dr. Dawson has for some years been a prominent member of the Norwood Club, and has during the last few years been selected for the interstate eighteen.

Dr. E. Ken Herring, late of Shepparton, Victoria, has succeeded to the practice of Dr. F. Liddell, of West Maitland, N.S.W.

Dr. Donovan, of Sorell, Tasmania, sustained a severe accident from being thrown out of his buggy. His left hip and shoulder were fractured. He was attended by Drs. Sprott and Giblin, of Hobart, who ordered his removal to Hobart. Much sympathy is felt for Dr. Donovan, as he only lately took over the practice, and everyone wishes for his speedy recovery.

Dr. Ralph Worrall, of Sydney, has left on a trip to Europe by the R.M.S. "Omrah." He expects to return to Sydney in December next.

At a special meeting of the Otago University Council, H. B. Pickerill, M.B., Ch.B., B.D.S., L.D.S., R.C.S. (Eng.), was appointed to the post of director of the new School of Dentistry, Dunedin, which is to be opened early in May next.

Dr. H. Swift was a passenger by the R.M.S. "Moldavia," which left Largs Bay, S.A., on April 4th. He intends to disembark at Marseilles. On April 2nd Dr. Swift was entertained by a number of his *confreres*, who cordially wished him a pleasant voyage and a safe return.

Dr. C. P. B. Clubbe has completed his period of 12 years' service as honorary surgeon to the Royal Prince Alfred Hospital, Sydney. On the occasion of his retirement, and on the eve of his departure for a trip to Europe and America, he was entertained at dinner at the Australian Club on April 5th by his colleagues on the hon. medical staff of the hospital.

Professor Anderson Stuart has been re-elected president, and Dr. R. H. Todd vice-president, of the Sydney Zoological Society.

Professor J. T. Wilson, and Drs. H. G. Chapman and T. Storie Dixon have been elected members of the council of the New South Wales Linnean Society.

Dr. Walter Baron has left Dunedin, N.Z., for London.

Dr. G. Hodges, Health Officer at Port Chalmers, N.Z., has left for a 12 months' holiday in the old country. Prior to leaving he was presented with a handsome silver-mounted suitcase. He expects to return about a year hence.

Dr. H. W. Martindale Kendall has returned to New Zealand and resumed practice in Wellington, N.Z.

Dr. R. H. Todd has been elected hon. secretary of the New South Wales Branch B.M.A., and Dr. W. H. Crago has been elected hon. treasurer.

Dr. G. E. Rennie has been re-elected editor and Dr. Crago manager of the A. M. GAZETTE.

Dr. William Newton, late of Merewether, N.S.W., has succeeded to the practice of Dr. S. C. Watkins at Katoomba, N.S.W.

Dr. G. A. Copland is about to leave Gore, N.Z., to settle in Hastings, N.Z.

Dr. Rodgers, who recently left Wyndham, N.Z., to join Dr. McAra in practice at Gore, has been presented by his Wyndham friends with a handsome roll-top desk.

Dr. Wm. M. Smith, of Dunedin, N.Z., recently returned from a twelve months trip to the old country and the Continent.

At the final professional examinations of the New Zealand University for the medical degree of M.B. and Ch.B., the following students were successful:—Richard Bagley, Robert Walter Baron, James Robert Closs, Alan Green, John Patrick Hastings, W. H. C. Patrick, Ivan Wilson, Tutere Wi Repa, and John Withers.

Dr. Harty has left Dunedin for Wellington, N.Z., where he intends to practice his profession.

Dr. Constance Frost has removed to the residence in Mount Roskill-road, Auckland, N.Z., recently occupied by Dr. Eleanor Baker, who is now practising in Kyber Pass road. Another new resident of Mount Roskill is Dr. Peter Moir.

Dr. Clarke, known for some years as the surgeon of the mail steamer "Ventura," has resigned, with the intention of practising in San Francisco. Dr. Ninor succeeds him.

Dr. Ferguson has commenced practice at Parnell, N.Z.

Dr. T. L. Anderson, of Fremantle, W.A., is proceeding to England for a six months' holiday. Dr. Anderson has been deputed by the Government to represent the State at the Congress on School Hygiene in London in August, and also to represent it at the International Congress on Hygiene and Demography at Berlin in September.

Dr. G. J. Lees, late of Adelong, has removed to Dubbo, N.S.W.

Dr. F. J. T. Sawkins has removed from 293 Elizabeth-street to 227 Macquarie-street, Sydney.

It has been resolved, by means of subscriptions, to place a memorial tablet in St. George's Cathedral, Perth, W.A., to the memory of Dr. G. F. McWilliams, who died recently after a short illness. The deceased was a Lieutenant-Colonel, and it is from his brother officers of the local forces that the present movement for a memorial has come.

Dr. F. A. Bennet, of College-street, Sydney, Hon. Physician to the Skin Department, the Royal Prince Alfred Hospital, left by the s.s. "Manuka" on April 15, to visit hospitals in America and Europe, and 12 months leave of absence has been granted him by the hospital authorities.

Dr. Walter Macgibbon has resumed practice, with the assistance of Dr. Allen Robertson, at 17 Brunswick-street, Fitzroy, Melbourne.

Dr. F. S. Jermaine-Lulham has resumed practice at St. Bartholomew's, Collins-place, Melbourne.

The Board of the University of New Zealand has appointed Dr. Lewis, of Auckland, to examine in surgery at the final professional examinations in Dunedin Medical School.

Dr. Hawkes has resumed practice at Brisbane.

Dr. Theodore Ambrose, late of Karridale, W.A., has taken over the practice of the late Dr. Allan at Subiaco, Perth, W.A.

Dr. Halford has resumed practice at "Turrawan," Clayfield, Brisbane.

Dr. R. E. Roth has been granted six months' leave of absence by the Royal Prince Alfred Hospital, Sydney, board of directors, to enable him to attend the conference on hygiene and demography at Berlin. He is to report on the latest developments of electrical and balneological therapeutic treatment.

Dr. T. Robert Lee's present address is 105 Collins-street, Melbourne.

Dr. F. Chapple has left Adelaide, and has settled at Nairne, S.A.

Dr. Charles H. Hill has resigned his position as hon. physician to the Kalgoorlie Hospital, W.A.

Recently Mr. Summons, M.B. and Ch.B., submitted to the Melbourne University a thesis on miners' phthisis. The work was approved, and by it Mr. Summons wins his degree as doctor of medicine.

Dr. Baxter Tyrie, who is leaving Boonah, Queensland, for Cairns, Queensland, was banqueted at Simon's Hotel on April 2nd. There was a large gathering, representative of the whole of the district.

Dr. Arthur Hill Murray, for 20 years surgeon to the Cunnamulla Hospital, Queensland, has returned after three months absence. He underwent a serious operation in the hospital at Sydney.

Dr. J. P. Ryan has returned from Europe, and has resumed practice at 28 Collins-street, Melbourne.

W. A. James, M.D., M.S., has resumed practice at 80 Collins-street and Wellington-street, Kew, Victoria.

After the last race at Burra, S.A., recently, a serious accident happened to the wife of Dr. J. I. Sangster, jun. Mrs. Sangster was leaving the course in a buggy, when the kingbolt broke. The horse bolted, and Mrs. Sangster was thrown out and had her arm broken.

Dr. S. M. Verco and Mrs. Verco met with an accident when driving through Lobethal, S.A., the pair of horses bolting through the main street; the vehicle was capsize, and fell upon the occupants. Both Dr. and Mrs. Verco were considerably knocked about, but they were shortly after the accident driven to Woodside.

Dr. H. S. Newland, of Adelaide, who has been studying American methods of surgery at the Johns Hopkins Hospital, Baltimore, arrived in Liverpool, England, recently by the steamer "Carmania," and will go up to London shortly.

Dr. S. C. Watkins has commenced practice at Hornsby, N.S.W.

Dr. E. Selwyn Harrison, late of Newcastle Hospital, has returned from a trip to Europe, and commenced practice at the Appian Way, Burwood, Sydney.

Dr. Edwards, of Waverley, Sydney, had recently to undergo an operation in St. Kilda Private Hospital, a legacy from the South African campaign. He is now making fair progress towards recovery.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Coutie, W. H., M.B., Ch.M., late Medical Officer, Hospital for the Insane, Parramatta, to be Medical Officer to the Callan Park Hospital, Balmain.

Hipley, Percy L., to be Relieving Honorary Assistant Medical Officer to the Royal Alexandra Hospital for Children, Sydney.

VICTORIA.

Benham, Rosemond Agnes, M.B., to be Public Vaccinator for the Metropolitan District.

Bishop, Dr., to be Health Officer for the Shire of Newstead.

Hodgson, George James, L.R.C.S., etc., to be a member of the Medical Board of Victoria, *vice* J. T. Rudall, deceased.

Irving, Harold Alfred (Cardale, M.B.), to be Public Vaccinator for the South-Western District, *vice* Charles F. Hodgkinson, M.B., resigned.

Jones, William Ernest, M.R.C.S., etc., Inspector-General of the Insane, to be also Inspector of Institutions under the Inebriates Act, *vice* John A. O'Brien, M.B., etc., resigned.

Mackeddie, John Fullarton, M.D., to be Pathologist to the Hospitals for the Insane situated within 20 miles of the General Post Office at Melbourne for 12 months.

Murphy, Thomas, M.D., M.S., Surgeon to out-patients at St. Vincent's Hospital, to be Hon. Surgeon to in-patients in the gynecological department.

SOUTH AUSTRALIA.

Harris, James Frederick, M.D., to be Medical Superintendent of the Port Pirie Hospital, *vice* Stewart, resigned.

Wells, D. C. V., Medical Superintendent of the Adelaide Hospital, to the Committee of the Royal British Nurses' Association, S.A. Branch.

The following gentlemen have been appointed to the Board of Management of the Adelaide Hospital:—

Hayward, W. T., M.R.C.S.L. & L. Mid., K.Q.C.R. (Irel.).

Hill, A. W., M.R.C.S., L.R.C.P., M.D. (Brux.).

Rogers, R. S., M.D., Ch.M.

WESTERN AUSTRALIA.

Barber, George Walter, to be Acting District Medical Officer, Kalgoorlie, and District Medical Officer, Kalgoorlie.

Brown, William Gilbee, M.B., B.S. (Melb.), to be Junior Resident Medical Officer to the Perth Public Hospital.

Cortis, Dr., to be a Visitor to the Derby Police Gaol.

Elder, A. Vavasour (Acting District Medical Officer) to be a Visitor to the York Gaol during the absence on leave of Dr. Davis.

Grey, William Charles, to be Honorary Physician, Kalgoorlie Hospital.

Parker, Reginald A., M.B., Ch.M., to be Junior Resident Medical Officer to the Perth Public Hospital.

Rockett, Richard Napoleon F., to be District Medical Officer, Northam.

Thurstan, Edward Paget, to be Acting District Medical Officer and Public Vaccinator, Busselton; also Acting Quarantine Officer for the Port of Busselton, during the absence on leave of Dr. Farmer.

Webster, Alfred, to be Acting Resident Physician, Kalgoorlie Hospital.

The following appointments have been made to the Honorary Medical Staff of the Perth Public Hospital:—

Lovegrove, T. H., M.R.C.S. (Eng.), Consulting Surgeon; Saw, A. J. H., M.B., B.S. (Cantab.), M.D. (Cantab.), F.R.C.S. (Edin.), Consulting Surgeon; O'Connor, M., M.B. B.S., B.A.O. (Dub.), Consulting Physician. Trethowan, W., M.B., M.S. (Aberd.); Newton, R. E., F.R.C.S. (Eng.), L.R.C.P. (Lond.), M.R.C.S. (Eng.), M.B., C.M. (Glasg.); and Stewart, J. M. Y., M.B., M.S. (Glasg.), Surgeons.

Ramsay, J. E., M.B. (Lond.), Gillespie, L. T., M.B., B.S. (Melb.), and Badcock, A., M.B., B.S. (Durh.), Assistant Surgeons. Astles, H. E., F.R.C.P. (Edin.), M.D. (St. And.), M.D. (Adel.), M.D. (Melb.); Leechen, H. A., M.B., M.Ch. (Edin.); and Thurstan, E. P., M.R.C.S. (Eng.), M.D. (Camb.), Physicians.

Harvey, H. F., M.R.C.S. (Eng.), L.S.A., Gynecologist. Kelsall, H. T., M.D. B.S. (Lond.), M.R.C.S. (Eng.), L.R.C.P., M.B. (Lond.), Ophthalmic Surgeon. Martin, A. E., M.D. (Durh.), F.R.C.S. (Eng.), L.R.C.P. (Lond.), Assistant Ophthalmic Surgeon.

Burkitt, G. O. E., L.R.C.S., L.K., Q.C.P., D.P.H. (Irel.), Ear and Throat Surgeon. Couch, J. K., L.R.C.P. (Lond.), M.R.C.S. (Eng.), M.D. (Durh.), Surgeon to the Children's Ward. Officer, A. E., M.B., B.S. (Melb.), Physician to the Children's Ward. Hancock, W. J., M.I.E.E., Radiographer.

TASMANIA.

Halley, Gertrude, M.B., Ch.B., to be Medical Inspector in the Education Department.

NEW ZEALAND.

Cloes, Dr. J. R., to be Junior House Surgeon at the Auckland Hospital.

Falconer, A. R., to be Senior House Surgeon to the Dunedin Hospital, and Dr. Green and Dr. W. Repe were appointed Junior House Surgeons.

Talbot, Leonard Smith, M.B., Ch.B. Univ. N.Z., 1903, to be Public Vaccinator for the district of Timaru.

Unwin, William Howard, M.R.C.S. (Eng.), L.R.C.P. (Lond.), M.B., Ch.B., etc., to be Public Vaccinator for the district of Timaru, *vice* Dr. Hogg, resigned.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARD.

The following gentlemen have been registered as legally qualified Medical Practitioners in their respective States:—

VICTORIA.

Paton, Gordon Andrew, M.B. (Melb.), 1906.
Taylor, Robert Stanley, M.R.C.S. (Eng.), L.R.C.P. (Lond.), 1905, M.B., B.C. (Camb.), 1906.

QUEENSLAND.

Avery, John Goodall, M.B., B.S. (Melb.), 1906.
Wallace, Thomas Irby, M.B., B.S. (Glas.), 1902.
Weir, Laura, M.B. (Melb.), 1906.

TASMANIA.

Halley, Ida Gertrude Margaret, M.B. (Melb.), 1895, Ch.B. (Melb.) 1896.
Henderson, David Smith, L.R.C.P. (Edin.), 1896; L.R.C.S. (Edin.), 1896; L.F.P.S. (Glas.), 1896.

NEW SOUTH WALES.

Brett, Percy Gore, M.B., B.S. (Melb.), 1903.
Evans, John, M.D., (Dub.), 1900; L.A.H. (Dub.), 1901.
Herring, Edward Ken, L.R.C.P. (Lond.), 1896; M.R.C.S. (Eng.), 1896.
Richards, Eulalia Sisley, L.R.C.P. (Edin.), 1904; L.R.C.S. (Edin.), 1904; L.F.P.S. (Glas.), 1904.
Watt, John Alexander, L.R.C.P. (Lond.), 1906; M.R.C.S. (Eng.), 1906.

For Additional Registration:—

Johnston, Langlosh Parker, M.Ch. (Syd.), 1906.
Qualie, Walter Thorald, M.Ch. (Syd.), 1907.

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

BRADY-SAMPSON.—April 3rd, at Dublin, to Dr. and Mrs. Brady-Sampson—daughter. By cable.
CAMPBELL.—March 25, at Clarmore Private Hospital, Sydney, the wife of Dr. A. W. Campbell—a daughter.

MARRIAGES.

CLIFFORD—HURLEY.—February 6th, 1907, at St. Charles' Church, Waverley, Sydney, J. P. Clifford, M.B., Ch.M., third son of late Mr. and Mrs. J. Clifford, of Wellington, to Agnes May, only daughter of Mr. and Mrs. P. J. Hurley, Bondi, Sydney.
HUNN—MAHOOD.—March 27th, at Yandiah, S.A., by the Rev. Percy Wood, William Morgan Hunn, M.B., Ch.B., son of the late John Hunn, to Muzzie, daughter of the late G. Mahood, Yandiah, Wirrabara.
MITCHELL—THOMAS.—March 9th, at St. James's, Weybridge (Surrey), Dr. Charles Martin Mitchell, of Lydney, Gloucestershire, to Annie Gladys, eldest daughter of J. Edwin Thomas, of Adelaide.

DEATHS.

HARPER-CREWE.—April 3rd, at Springwood, N.S.W., Mary Harper-Crewe, relict of the late Dr. Charles Harper-Crewe, aged 58 years.
KEARNEY.—March 10th, at Alfred Hospital, Melbourne, A. D. Kearney, L.R.C.P. & S., second son of M. Kearney, Moorillim, Victoria.

BOOKS RECEIVED.

A System of Medicine. By many writers. Edited by Thomas Clifford Allbutt, M.D., F.R.C.P., F.R.C.S., etc., and H. D. Rolleston, M.D., F.R.C.P. Vol. 2, Part 2. Tropical Diseases and Animal Parasites. London: Macmillan & Co., Ltd. Price, 25s net. 1907.
The Care and Nursing of the Insane. By P. J. Bally, M.B., C.M. (Edin.). Part 1. Anatomy and Physiology. Number of pages, 97. London: The Scientific Press Ltd., 28 Southampton-street, Strand. Price, 1s net.

Skin Diseases, their Nursing and General Management. By G. Norman Meachen, M.D., B.S. (Lond.), M.R.C.P., etc. Physician for Skin Diseases, Tottenham Hospital. London: The Scientific Press Ltd. Price, 2s 6d net. Number of pages, 134.

Encyclopedia and Dictionary of Medicine and Surgery. Vol. 3. Earth Burial to Gummi Indicum. Edinburgh: William Green & Sons.

The Treatment of Syphilis. By Alfred Fournier, Professor at the Faculty of Medicine, Member of the Academy of Medicine, Physician to the St. Louis Hospital, Paris. English translation of the second edition (revised and enlarged by C. F. Marshall, M.D., F.R.C.S., formerly President Medical Officer to the London Lock Hospital). London: Rebman Ltd., 129 Shaftesbury Avenue. Sydney: Angus & Robinson. Price, 21s.

The Melbourne University Calendar, 1907.

Transactions of the Australasian Medical Congress, Adelaide, 1905.

Antiseptic Methods for Surgical Nurses and Dressers. By Harold Upcott, F.R.C.S. Number of pages, viii+51, illustrations 10; size, crown 8vo. London: Baillière, Tindall and Cox. Sydney: L. Bruck. Price, 2s 6d.

The Röntgen Rays in Medical Work. By D. Welch, M.D. (Edin.). Part I: The Electrical Apparatus, by H. Lewis Jones, M.D. (Cantab.), F.R.C.P. (Lond.). Part II: The Medical and Surgical, by the author. Number of pages, xviii+433, illustrations 172; size, demy 8vo. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 15s net.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Messrs. Lea Bros. & Co., Philadelphia; Dr. H. G. H. Naylor Melbourne; Messrs. Parke Davis & Co., Sydney; Dr. F. Antill Pockley, Sydney; Dr. R. H. Marten, Adelaide; Dr. E. E. Griffiths, Bellingen, N.S.W.; Dr. J. P. Warbasse, Brooklyn, New York; Mr. D. A. Greenlees, Sydney; Dr. C. E. Todd, Adelaide; Dr. A. B. Brockway, Brisbane; Dr. W. S. Byrne, Brisbane; Mr. L. Bruck, Sydney; Mr. G. T. Taylor, Hobart; Dr. W. G. Armstrong, Sydney; Dr. E. S. Stokes, Sydney; Dr. R. Worrall, Sydney; Dr. Lidwell, Sydney; Dr. H. Russell Nolan, Sydney; Mr. W. Rodier, Cobarr, N.S.W.; Dr. Gregory Spott, Hobart; Dr. Guthrie Rankin, London; Mr. W. J. Maxwell, Perth, W.A.; Dr. A. A. Hamilton, Adelaide; Dr. B. J. Newmarch, North Sydney; Mr. Archibald Ollé, Sydney; Dr. E. C. Borthwick, Adelaide; Dr. J. Ashburton Thompson, Sydney; Dr. Henry Laurie, Melbourne; Dr. A. Corry, Mt. Egerton, Vic.; Dr. Martin, Perth, W.A.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor."

We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valeric Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. *The Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creosote." *The Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

AUSTRALASIAN MEDICAL GAZETTE

No. 308.

SYDNEY, MAY 20TH, 1907.

VOL. XXVI., No. 6.

THE INFLUENCE OF LOCAL IRRITATION AND THE NATURE OF INFECTIVITY IN RELATION TO TUMOUR GROWTH.

An Address delivered in the Section of Pathology and Bacteriology at the first Australian Dental Congress, Sydney, February, 1907.

By D. A. Welsh, M.A., B.Sc., M.D., Professor of Pathology in the University of Sydney, and Chairman of the Section.

THE practice of dentistry derives its honourable position and its ultimate sanction from the fact that it is ancillary to the practice of medicine. The most obvious aspect of this relationship may be epitomised by saying that one of the first conditions of health is a satisfactory set of teeth, and that, conversely, an imperfect dental equipment is contributory to many ailments. But there is a further relationship between dentistry and medicine, in so far as dental imperfection may be the direct exciting cause of disease. From the most trivial imperfection, disease in its most intractable form may arise. We need not dwell on the possible origin of pyæmia, tetanus and other grave infections, nor on the possible association of pernicious forms of anæmia with oral sepsis (Hunter). More important than these, because more common and not less inveterate, are certain morbid growths of the mouth, and, in particular, certain cancerous growths, whose onset may be determined by the irritation of a ragged tooth. In presenting for your consideration the possible sequence of events which, starting from an imperfect tooth, may terminate in cancer, it is perhaps not out of place that I should also endeavour to give you some conception of the nature of cancer growth in so far as it has been revealed by modern research. We may, therefore, deal with our subject under the following headings:—

1. The association of oral cancer with dental irritation.
 2. The infective nature of tumour growth and the nature of relative malignancy.
 3. The possible origin of infective tumour cells.
1. *The association of oral cancer with dental irritation.*—We may take it as one of the few

accepted facts in regard to the origin of morbid growths that they are prone to arise from sites of maximum irritation. However it may be explained, the general principle is recognised that the incidence of cancer may be determined by local irritation. Cancers of the skin, for example, not infrequently make their appearance in the cicatrix of a burn or other injury. The appearance of cancer in the tongue or in the lip is not uncommonly preceded by some indolent sore or ulcer maintained by chronic irritation. In the stomach and in many other parts of the body the sites selected by cancer usually correspond with sites of habitual irritation. There is, therefore, a large body of contributory evidence in support of this general causal relationship.

When we come to enquire into the particular application of this principle to morbid growths of the mouth, we find that, in regard to the gravest and commonest form, the squamous cell carcinoma, evidence of antecedent irritation can in a large proportion of cases be obtained. What is more to our purpose, the particular form taken by this antecedent irritation may include persistent friction between the mucous membrane and the roughened edges of a carious tooth. Cancers of the mouth are most commonly encountered on the tongue and on the lower lip. On the tongue they are most frequent at the margin where contact is made with the teeth. I should deprecate spoiling a good case by exaggeration, even for the sake of pointing a good moral, but we may at least note that this choice of site is suggestive.

It may be admitted that only a small proportion of cancers of the mouth are associated with dental irritation. The important point is that this association can in a certain number of cases undoubtedly be traced. Parts of the mucous membrane previously healthy may, after continued friction against a roughened tooth, come to show a minute, somewhat tender pimple; later, under repeated chafing, the pimple becomes abraded, leaving a small open sore or ulcer which as yet is not a cancer. The patient is incommoded, certainly, by the presence of this indolent sore, but does not recognise any

urgent necessity for seeking relief. When he ultimately consults a dentist, and has the offending tooth repaired, he probably deludes himself with the expectation that, when the source of irritation has been removed, the small ulcer will heal. It is possible that the dentist may lend himself to buttress this insecure belief. But, as the weeks pass by, the expectation is not realised; an insidious change has been taking place in the ulcer, whose edges and base become noticeably indurated; the induration increases until the patient, thoroughly alarmed, seeks advice only to learn that for weeks or months he has nurtured in his system the seeds of death.

This is not an alarmist presentment; it is a simple statement of a not uncommon sequence of events, which every surgeon will recognise. The significant facts are that a certain small proportion of cases of a not infrequent disease of inveterate malignancy may be associated with the local irritation of a carious or broken tooth, and that, had no such dental imperfection existed, the cancer would in all probability never have occurred. These considerations should be ever present to the mind of the dentist, enabling him to appreciate the covert danger that may lurk about a ragged tooth, and to decide when to warn the patient to seek immediate surgical advice. Much harm may be done by frightening a patient with the suggestion of a non-existent cancer; but, believe me, much more harm is done by failure to recognise and failure to warn him of the imminent risk of an impending or established cancer. The perfect dentist will display such admirable diplomacy as to induce his patient to consult a surgeon without alarm and without delay. But it is infinitely better to cause needless alarm than to allow a suspicious sore to pass unchallenged.

2. *The infective nature of tumour growth, and the nature of relative malignancy.*—We cannot yet explain the growth of cancer, but we can at least endeavour to form some conception of the nature of the process in harmony with modern knowledge. Without a satisfactory conception of the cancer process, we cannot adequately appreciate the problems that it offers, and I think you will find that, notwithstanding our fundamental ignorance, it is not hard to reach such a conception. Let us take an analogy from the domain of bacteriology. When bacterial cells gain access to the animal body, one of two things

may happen—either they are antagonised and are killed off by the defensive mechanisms of the tissues, or the resisting powers of the tissues are overcome by the numbers and virulence of the bacteria. In the former case the bacteria disappear from the body, and no infection occurs; in the latter case, the bacteria thrive and multiply in the tissues, and the animal is said to become infected. The essence of the process of infection, therefore, is that the bacterial cells concerned have entered the tissues and have begun to multiply there. A disease which depends upon the proliferation and multiplication of alien cells within the animal body is termed an infective disease; and if, in addition, the disease is capable of being transmitted from one animal to another (by transference of the infective cells), it is spoken of as infectious. A disease may thus be infective, that is, due to invasion and proliferation of hostile cells, without being infectious, that is, transmissible to other animals. To this category, as we shall presently see, cancer may be said to belong.

For our present purpose the ultimate unit in a cancerous growth may be taken to be the individual cancer cell, and, although each cancer cell is the direct descendant of some pre-existing cell within the organism in which it grows, nevertheless the cells of a cancer become at a very early stage differentiated and sharply marked off from all the other cells of the organism. Whereas the cells of the healthy animal body are all working for the common good, the growth and activities of each tissue and cell being so conditioned and regulated as best to attain this end, the cancer cell appears as a seceder from this commonwealth. The growth of cancer proceeds independently of, and, indeed, at variance with the requirements of the organism and, further, the regulated and orderly growth of the parent tissue is exchanged for the unregulated and disorderly growth of the tumour. The absolute nature and extreme degree of this twofold independence— independence of the needs of the organism and independence of the laws of tissue growth—are the basis of that hostility so characteristic of cancerous tumours. Although bearing a most intimate developmental relationship to the cells of the parent organism or tissue, the cancer cell is essentially hostile, just as hostile, for example, as bacterial cells may be when they effect a lodgment in the tissues.

There is yet a third manifestation of independence exhibited by cancer cells, inasmuch as they grow independently of one another. Particularly is this the case at the advancing margin of a cancerous growth, where any one cell appears to be equivalent to any other, and all are mutually independent. So far as we know, any one cell detached from the advancing margin is capable of starting a secondary nodule in another part of the body, and is as untrammelled in its growth as, in similar circumstances, a pathogenic bacterium would be. There is thus a close parallelism and a suggestive analogy between the general characters of cancer cells and the general characters of bacterial cells, and it is on this parallelism and on this analogy that I mainly rely in order to put before you the fundamental features of tumour growth.

For, whatever the ultimate nature of cancer may prove to be, this at least is certain, that it constitutes an invasion of the organism by a brood of independent and hostile cells, and that, once these cells have made their appearance within the organism, they may undergo a practically indefinite and unlimited multiplication and proliferation. But these are precisely the conditions that go to make up the process of infection, and so we reach the general conclusion that, in a very definite and intelligible sense, cancer is an infective disease—as certainly infective as any disease due to an invasion of the organism by other parasitic cells, whether of bacterial or of animal origin (as in malaria and in trypanosomiasis). This is not a new theory; it is merely a re-statement of accepted facts, marshalled, I trust, without distortion. So far as I can conceive the nature of cancer growth, this attribute of infectivity is fundamental, and the recognition of it is independent of any hypothesis that may be formed regarding the origin of cancer. To my mind, also, a due appreciation of the infective nature of cancer tends, not to confuse, but to co-ordinate certain phenomena of tumour growth, such as relative malignancy, which otherwise are hard to apprehend.

One hypothesis regarding the origin of cancer, widely known as "the parasitic theory of cancer," must have been present to your minds when I spoke of the analogy between cancer cells and other bacterial or animal parasites capable of producing disease. This hypothesis is based on the observation that cancer cells not infrequently con-

tain within their substance peculiar bodies, "cell-inclusions," which bear a more or less close resemblance to certain low forms of organised life. It is assumed that these appearances represent stages in the life-history of some parasitic micro-organism which has invaded the cancer cell, and it is suggested that the malignant proliferation of cancer cells is induced by some stimulus supplied through the agency of the minute parasites within them. It may be that the cause of cancer will ultimately prove to be some parasitic microbe infesting its cells. As yet, however, this is far from being an established fact, and the hypothesis has the further demerit of being hard to reconcile with some of the known facts of tumour growth. But our point is this, that, although the existence of a specific cancer parasite is at the best doubtful, the existence of the parasite, cancer, is beyond a doubt. It is not in the commonly accepted sense, therefore, that I would advocate a "parasitic theory of cancer"; what I would impress upon you is the fact that the cancer cell is in itself a parasite, and is endowed with that formidable attribute of the more highly pathogenic parasites—the attribute of infectivity.

The non-infectious nature of tumour growth.—Other aspects of the infectivity of cancer we shall presently consider, but, having emphasised the fact that cancer is an infective disease, let me reassure you of the further fact that it is not infectious. Two of the most serious obstacles to the scientific study of tumour growth have been the impossibility of originating a new-growth by any artificial means, and the difficulty of transmitting a new-growth from one animal to another. The former has not even yet been overcome, the latter only within recent years. Up to the year 1902 (I am quoting from a previous address of mine on this subject) only a few isolated instances of successful transplantation of tumours from one animal to another had been recorded. The first to achieve systematic success was Professor Jensen, of Copenhagen, whose results were not made generally known until 1903. In the same year Borrel, of Paris, published another series, and in 1904 there appeared the first scientific report of the Imperial Cancer Research Fund, in which further examples were noted. All these successful results were obtained by transplanting tumours of mice to other mice. In the case of no other animal, with the single exception of the rat

(which is of the same genus as the mouse), has the transplantation of new-growths been successful. Attempts to transfer malignant new-growths from the horse, dog, cat, rat, and carp to other individuals of the same species have, at the hands of the Cancer Research Fund, resulted in failure; although in the case of the dog, cat and rat over 900 inoculations were made.

Jensen's original tumour, growing in a white mouse, was regarded by him as an epithelioma. More recently doubts have been expressed in reference to this classification of the growth, but that it is a true new-growth is generally admitted, and the fact remains that Jensen's tumour is the first known example of an infective new-growth which is also readily transmissible. Introduced into other mice, it yielded from 30 to 60 per cent. of successful inoculations, and it has proved to be one of the most readily transmissible of all new-growths hitherto tested. It is still growing, like a pure culture of bacteria, in various laboratories on the Continent of Europe, in England and in America, the medium on which it thrives being successive generations of mice. In its duration of life (five years) it has nearly doubled the natural term of life of a mouse, and in bulk it has exceeded that of many thousands of mice. The total mass of cancer tissue developed by these successive transplantations of Jensen's original tumour was calculated, a year and a-half ago, to have exceeded the bulk of a large St. Bernard dog. With what enormous animal it is now comparable I hesitate to say. The amount of work that is being devoted to this aspect of the investigation of cancer may be gathered from the fact that Bashford, of the Imperial Cancer Research Fund, has recently published a summary of the results of 25,000 inoculations of Jensen's mouse tumour alone. This great power and persistence of growth is equalled only by the natural propagation of successive generations of mice, and indicates a source of potential vitality in the cells of the cancer comparable only to that which secures the continuance of the race.

Having regard to these considerations, and bearing in mind also that cancers have never been transferred from man to other animals, nor, indeed, from any animal to another of different species, we must admit that the transmissibility of cancer is exceedingly restricted—that, as a matter of fact, it is limited to the occasional experimental infec-

tion of one small rodent from another by direct inoculation with living cancer cells.

Nevertheless, evidence of endemic outbreaks of cancerous, or cancer-like, tumours among various animals has from time to time been advanced. Hanau and Loeb in rats, Borrel and Michaelis in mice, Cooper and Loeb in cattle, Pick and Bonnet in trout, have each reported instances of the appearance of cancer affecting so large a proportion of animals in one place as to suggest some common source of infection. More recently Gaylord has submitted certain facts which suggest that infected cages may be the source of spontaneous cancer developing among small caged animals, including rats and mice. And, in regard to the liability of the human subject, the existence of "cancer houses" and "cancer districts" in which there occur a succession or an undue proportion of deaths from cancer, has repeatedly been alleged. I would not criticise adversely statements advanced by able and competent observers, which I have no means of testing for myself, further than to point out to you that many cancer-like tumours are admittedly infectious, that they are often hard to distinguish from true cancers, and that much of the evidence above quoted is open to the objection that the tumours either were not examined at all, or were not convincingly differentiated from infectious non-cancerous growths.

In approaching the study of a subject so vast, so elusive, and so occult as that of the nature of cancer, we must be particularly careful to keep our minds free from bias and to avoid precipitate conclusions. We must be prepared to admit all evidence on its merits without discounting its significance by reference to our preconceived notions. We must, for example, hold ourselves intellectually in readiness to accept the possibility that cancer may be due to the agency of some parasite or that cancer may be naturally infectious. With this proviso, however, and with the evidence before us, I am bound to confess that in respect of human forms in particular, I fail to discern any cogent reason for regarding cancer as an infectious disease.

The nature of relative malignancy.—Another aspect of tumour growth that it is important for us to consider is the question of relative malignancy. It is customary to divide new-growths into two groups—the simple, benign, or innocent on the one hand; the malignant or cancerous on the other. The more opportunities I have for the study

of tumour growth, the more am I convinced that all new-growths are essentially malignant, though all are not equally malignant. The differences recognisable in their mode of growth are differences in degree and not in kind, and all degrees are possible. The most benign of tumours possesses, though in lesser measure or in modified form, all the fundamental attributes and capacities with which the most malignant new-growth is endowed. From a clinical standpoint it is of the utmost importance to be able to say whether a growth is of a low order (benign) or of a high order (malignant) of malignancy; but from a scientific point of view it is no less important to recognise that the distinction does not mark any fundamental difference between the two classes of new-growth. Malignancy, as I understand the term, is only another expression for infectivity, an attribute common to all forms of new-growth, but developed to a variable degree in different forms. Clinically "malignant" growths are made up of cells whose infective capacity is high; clinically "benign" growths are composed of cells of low infective capacity.

We can best understand how the malignancy of a new-growth is determined by its infectivity if we have recourse once more to the analogy furnished by bacteriology. Among infective diseases marked differences exist as regards the distribution of the causal bacteria within the body and as regards their capacity for infection. In some infections the multiplication of the bacteria is localised, and the microbes are restricted to the original site of infection, as in the case of a small local abscess. In other conditions the bacteria are not so restricted, but may extend widely into the adjacent tissues, as in cases of spreading inflammation or suppuration, though they may not appear in the blood or in remote tissues until just before death. In yet other circumstances, whether the local proliferation be restricted or extended, the bacteria may show a special tendency to enter the lymphatic or the blood channels and thus to give rise to widely disseminated lesions, as in tuberculosis or in pyæmia. Every one of these types of lesion, apparently so diverse, may be produced by one and the same organism, according as its virulence—in other words, its capacity for infection—is modified. A staphylococcus or a streptococcus of low virulence may, if it infect at all, give rise merely to a small local abscess. The same organism, endowed with greater virulence,

may cause spreading forms of suppuration or erysipelas. And, again, the same organism may enter the blood stream and give rise to the multiple secondary abscesses of a pyæmic infection.

Now the phenomena of tumour growth present many close analogies to these phenomena of bacterial infection. Some new-growths remain localised, and their component cells show little or no tendency to infiltrate (infect) adjacent tissues, nor do the growths tend to recur after removal. In others the cells are prone to local infiltration (infection) and the growths to inveterate local recurrence, but they may not give rise to secondary nodules until late in the course of the disease. In yet others, the tumour cells, in addition to local infiltration, may have developed a special tendency either to extensive lymphatic infiltration or to invasion of blood vessels, in the former case originating a widespread lymphatic infection, as in tuberculosis, in the latter case causing the dissemination of secondary embolic growths analogous to pyæmia. In fact, if for the word "bacterium" we substitute "tumour cell" and for "inflammation or suppuration" we speak of "tumour growth," we obtain a corresponding series of statements which are in accordance with the main facts of tumour growth, and we are in a better position to understand that, just as in the case of bacteria, so also in the case of tumour cells, it is their capacity for infection that conditions the extent and manner of their dissemination within the body. What we denote "virulence" in respect of bacteria, becomes "malignancy" in respect of tumour cells, and each expression may, for our present purpose, be regarded as equivalent to "infectivity."

The effective malignancy of a new-growth, however, may be modified by the physical conditions of its structure. Some of the more malignant forms may be largely restricted to local manifestations of malignancy because of the structural cohesion among the individual cells and the physical difficulty of their becoming detached from the parent mass.

The local and the general reaction.—In many bacterial infections the proliferation of the bacteria induces a local reaction and proliferation of tissue cells which may thus come to form a localised swelling or "tumour." But it is not in this sense that the term tumour is employed in reference to cancers and other new-growths. In the so-

called "tumours" of bacterial origin the bulk of the bacteria is practically negligible, and the mass is made up of proliferated tissue cells and other inflammatory products; whereas in the tumours proper, including cancer and other forms of new-growth, the mass may consist almost entirely of the infective tumour cells, although in many cancers the products of tissue reaction may come to bulk more largely than the cancer cells themselves.

Other differences between cancerous and bacterial infections may be correlated with differences in the nature of the infecting agent. Thus cancer cells, unlike bacterial cells, are the direct descendants of cells within the organism. Probably on account of this intimate genetic relationship they induce a less marked reaction on the part of the organism than do the alien bacterial cells. For example, while cancer cells may induce a local inflammatory reaction greater than that associated with some bacteria, they do not appear to stimulate that general reaction on the part of the organism which is so prominent and characteristic a feature of most bacterial infections, that recovery is the rule and death the exception. The elaboration of anti-substances in response to a cancerous infection is correspondingly defective, no recognisable immunity becomes established, and spontaneous recovery is exceedingly rare. The fact that the infecting cells of cancer claim kinship with the infected organism may be the cause of the deplorable uniformity with which untreated cases progress to the inevitable end.

3. *The possible origin of infective tumour cells.*—The possible origin of infective tumour cells within the animal body is indicated by certain biological considerations which we can only briefly pass in review. In the first place we note, from clinical observation in man and from the experimental propagation of Jensen's mouse tumour, that cancer cells are endowed with great vitality and longevity; that, indeed, they appear to possess a reserve of vital energy in excess of that retained by the natural tissues of the body. The second point is that, in their manner of growth, cancer cells appear to be liberated from the conditions that regulate normal tissue development; that they are a law unto themselves; that they form independent and autonomous growths equivalent to a new individual, or rather to a swarm or brood of new individuals parasitic upon their host. Hence two of the first questions that

present themselves are "Whence this vitality?" and "Whence this autonomy?"

A sudden increase of vitality among higher animal cells (of which cancer cells are but a particular variety) is naturally effected by the conjugation of two mature reproductive cells of opposite sex. No other circumstance, so far as we know, is adequate to initiate that new generation of cells, which we recognise as a new and independent individual, and which alone is endowed with an accession of vital energy. In the higher animals and plants this process of cell conjugation does not take place except between cells specially set apart in the reproductive tissues and specially prepared by a succession of peculiar nuclear divisions, termed meiotic divisions. These nuclear divisions are of so definite a character that they are unmistakeable, and, with a few recognised exceptions, they make their appearance only in the reproductive tissues and only in the cells which are attaining maturity. Now these distinctive forms of nuclear division may be encountered in the dividing cells of early cancerous growths (Farmer, Moore and Walker). You will at once recognise that this is a most significant circumstance, indicating as it does that the cancer cells have assumed one of the fundamental characters of reproductive tissue, and that some at least have undergone a process analogous to that which in the reproductive tissues of higher animals is universally found to be an invariable preliminary to cell conjugation. This analogy is reinforced by the further observation that the "cell-inclusions" of many cancer cells closely resemble bodies which naturally make their appearance within certain reproductive cells at a certain stage of development. (Farmer.)

Again, the laws of natural growth are very definite for each tissue, and the special laws of any one tissue appear to be equally impressed upon all the cells that develop from it, and to form part of their natural heritage. But in the unnatural growth of cancer there is the anomaly of cells descended from tissue cells but growing at variance with the conditions that regulate the development of the parent cells. The only consistent biological explanation of this independence and autonomy would be that the cells differentiated off as early cancer cells should conjugate with other cells inheriting and conforming to other conditions of growth. A truly remarkable fact in the life history of cancer is that such a

process suggestive of cell-conjugation has actually been observed. At all events an interchange of nuclear matter, which may be regarded as equivalent to conjugation, has been shown to take place between developing cancer cells and emigrated leucocytes (Farmer, Moore and Walker), and it has also been demonstrated that the leucocyte is peculiar among the normal non-reproductive cells of the body in having already undergone nuclear divisions peculiar to cells undergoing preparation for conjugation (C. E. Walker). It is possible, therefore, that the fully developed cancer cell may be the offspring of a fixed tissue cell and of a wandering leucocyte, both cells having undergone the nuclear metamorphoses of reproductive tissue. Should this be so, it is only reasonable to expect that the resultant cancer cell should participate in the varied capacities of its twofold heritage. Hence may be the reason why the cancer cell, while retaining many of the structural features of the tissue of origin, has come to acquire in so high a degree the additional capacity for wandering, for infiltrating, for infecting.

To recapitulate, then, we find that certain biological phenomena emerge from this recent work on cancer. We find that certain forms of nuclear division appear early in cancer cells, that such nuclear divisions are found only in cells of reproductive tissues preliminary to maturation (and in leucocytes), and that nuclear exchanges (conjugations?) take place between wandering leucocytes and developing cancer cells. Now, can we go further? Can we point to any condition which might predispose a group of tissue cells to assume the character of reproductive cells? As a matter of fact there is evidence that two conditions are commonly present — one general, the other local — both of which may possibly influence this transformation. The general condition is a chemical change in the reaction of the body fluids. It has been shown that developing cells may be induced to undergo increased and abnormal nuclear divisions, when the chemical reaction of their environment is altered, and when, in particular, the alkalinity of the medium is increased (Moore, Roaf and Whitley), and there is evidence that the body fluids of a cancer patient commonly exhibit this increased alkalinity (Moore, Alexander, Kelly and Roaf). Hence it may at least be said that the body fluids of a cancerous subject are commonly in a condition which independent biological

research has shown to be favourable to abnormal nuclear transformations.

The local condition is indicated by the fact that the primary appearance of cancer in any tissue is most frequently associated with the senescence of that tissue. This is not strictly the ageing of the tissue, but the advent of the period of its functional desuetude. Of the many factors that may be supposed to influence the appearance of new-growths the senescence of the tissue of origin is probably the least variable. It is, therefore, not improbable that in some way the senescence of the tissue is related to the appearance of reproductive divisions in certain cells. It is not impossible that, as the period of functional activity draws to a close, the tissue is induced by some obscure biological stimulus to make preparations for self-propagation, which preparations we may designate unnatural or perverted, since they occur in cells not specially set apart for reproduction, but which may in reality be the natural expression of a fundamental biological law. It may be that at the root of the cancer process there is this inherent paradox that, in trying to achieve immortality for the cells of one tissue, it precipitates the death of all.

Lastly, amid these biological considerations can we find any place for the influence of local irritation? It is probably, as we have seen, one of the prime factors in the causation of new-growth, and it is possible that its influence is exercised in the induction of premature senescence. A damaged or irritated tissue probably reaches the limit of its active usefulness sooner than does the corresponding healthy tissue. Senescence is not necessarily a question of time; it may be accelerated by adverse conditions of life, among which may be reckoned the influence of local irritation.

SOME NOTES ON APPENDICITIS.

By R. Humphrey Marten, M.D. (Cantab), B.C.,
M.R.C.S. (Eng.), L.R.C.P. (Lond.), Adelaide.

SEEING that we were to have a discussion this evening on "Appendicitis," I thought I would like to make a few remarks on what, to my mind, is the most treacherous of all abdominal diseases.

A few years ago Dieulafoy wrote thus: "Il n'y a pas de traitement médical de 'appendicite,' i.e., there is no medical treat-

ment for appendicitis. At that time I thought this was a very sweeping statement by such a high authority, and did not myself act up to his dictum, and, like so many of my *confrères*, have since lived to regret it. Nowadays, I believe, we are nearly all agreed that if we are certain of our diagnosis, the sooner the appendix is outside the abdomen and in a bottle the better it is for our patient and the easier it is for our own minds, it being impossible to say beforehand from the symptoms in what condition the appendix will be found. If I have to go to bed knowing I have a patient suffering from well-marked appendicitis, my night is disturbed by horrible nightmares, and I rise to go straight to the patient to persuade him or his friends to allow the immediate removal of the offending organ, or else take all responsibility on their own shoulders. Sometimes they do not take this advice and get well and consider that I have been attempting to foist an unnecessary operation upon them, and in other cases perforation, suppurative peritonitis and death has been their lot.

Appendicitis is at present a bogey on the mind of the general public, and one is constantly being asked as to why the disease has so increased in frequency of late years, but in looking back through the last two decades I would not like to say that there has been so great an increase in the number of such cases, but that our powers of diagnosis have vastly improved. One reason for the apparent increase is the great prominence given to the condition in the public press; nowadays you rarely open your daily paper without seeing that some person, notable or otherwise, has undergone an operation for appendicitis, and I think the newspapers, when in doubt as to the cause of death of any patient, must keep in type the sentence, "Died after an operation for appendicitis." I know I was astounded one morning to read that a patient I was in attendance upon had been operated upon for appendicitis the day before, whereas, in truth, he had only had an ordinary soap and water injection administered.

Some of us have been in practice long enough to remember the time when any woman who was suffering from a pelvic pain was immediately recommended to undergo the operation of oöphorectomy, and I can remember the late Lawson Tait used to come to a medical society in a town where I was apprenticed, and bring out of the side pockets of his velvet pea-jacket that he

always wore, handfuls of ovaries and tubes; some of these looked very normal. Now this has all changed, and conservatism is the order of the day. At the present time I am afraid the operation of appendectomy is going through the same stages. I think we have all seen—I know I have, both here and in Europe—appendices removed for indefinite pains in the cæcal region, and which were perfectly normal. The patient has returned home minus his appendix, but still with his pain, and vowing vengeance against his medical adviser.

What we ought to do is to attempt to so reduce our diagnosis to a certainty as to avoid as much as possible the recurrence of such results and prevent the opprobrium which is being cast upon what is otherwise one of the greatest advances and life saving of all abdominal operations. I cannot do better than by quoting some of my own experiences to show what I mean.

The first case I remember was a gentleman who lived of the best, took very little exercise, a fair amount of alcohol, and had very frequently attacks of pain in the appendix region, always attended by a rise of temperature; it was in the early days of the appendicitis scare, and he eagerly jumped at the idea of getting rid of his enemy, and I removed what I have since learned to be a perfectly normal appendix. His symptoms recurred just the same for a few years, but of late the occasional use of a blue pill and a black draught, with more careful dieting, has rid him of his enemy, which operation failed to do. I believe his symptoms were entirely due to an overloaded cæcum.

The next case was that of a fine, strapping young man, who complained of pains in the region of the appendix, and who always had his urine loaded with phosphates, and a friend of mine was constantly skiagraphing his right renal region and the ureter, with a hope of finding a calculus. The patient visited a neighbouring State and consulted a well-known surgeon, who immediately admitted him to a private hospital, and as evening came on the surgeon became anxious and removed his appendix, and wrote to me, saying, "It was a very long appendix, covered with dilated veins, and crying out for immediate removal." The patient brought back his appendix (which, to my eye, and to many others, appeared perfectly normal), and also his pain in the same situation as before.

Since then he has gradually lost his phosphaturia and with it his attacks of pain.

Leedham Greene, in the *Lancet*, lately had a very valuable paper on cases of typhoid fever being operated upon or diagnosed as appendicitis, and knowing the structure of the appendix, this is not to be wondered at. I once diagnosed appendicitis in a friend of mine, but typhoid supervened, and since then he has had his appendix removed for a very definite attack of appendicitis.

Another case was that of a young girl who was always complaining of pain in the right inguinal region, and in the end had her appendix (which also appeared quite normal) removed. Her pains rather increased than diminished, and she has drifted from one medical man or hospital to another, but, so far as I know, with no relief to her symptoms or an accurate diagnosis.

By quoting these cases I do not for one moment mean to infer that the operations were not done with a view to removing the source of the troublesome symptoms, but to show how difficult is the diagnosis in some cases, and how careful we should be to eliminate all sources of error before putting our patients to such an ordeal. Even in acute cases the diagnosis is not always straightforward, but generally in such conditions the symptoms are such as require an immediate operation to save the patient's life.

The following is such an example. Early one morning I was sent for to see a lady who had an attack of acute abdominal pain; three years before I had done a pylorotomy on her for carcinoma of the pylorus. She was semi-comatose and had great pain and tenderness over the old scar. I got a well-known surgeon to see her with me, and he said to me afterwards, "Whatever else is the matter with her, she has got nothing wrong with her appendix." We opened the abdomen the same afternoon, and found a gangrenous appendix, which was removed, and the patient quickly convalesced; but there was one peculiarity about her—she never knew anything of her illness for four days after the operation, when she wondered why she was in a private hospital.

A few weeks ago I was asked to see a lady who was passing through Adelaide for the eastern States. She complained of pain in the appendix region, with tenderness and rigidity of the right rectus; her temperature was 101° F. She gave a history of similar

attacks coming off and on for the last month, attended by great loss of flesh. She was removed to a private hospital and next morning all her appendix symptoms had disappeared, and were replaced by pain in the lumbar spine, with pains shooting down the fronts of both thighs. Not being satisfied with her condition, Dr. J. C. Verco saw her with me, and detected areas of anæsthesia over both iliac crests, but more marked on the right side, and we thought she had some commencing spinal trouble. In a few days there was great pain and tenderness over the right sacro-iliac synchondrosis, the urine became purulent, and when examined bacteriologically for the tubercle bacillus only showed the common colon bacillus. We then examined her under an anæsthetic, and much to our surprise found very extensive pelvic trouble, which has since been attended to by operation, and at the time the appendix was seen to be perfectly normal.

I think these few cases show into what pitfalls we are liable to find ourselves. With regard to the various symptoms which would lead me to suspect appendix trouble, I should put pain with rigidity of the right rectus muscle easily first. Then loss of movement of the abdominal muscles, but remembering that in cases of retro-colic appendicitis the abdomen may appear to move perfectly; but in these cases on comparing the two loins, the right lumbar muscles will be found to be rigid and board-like as compared to the left, this being a most important sign in obscure cases.

Next to loss of movement I should put disappearance of the abdominal reflex on the right side, together with hyperæsthesia over Head's area for the appendix.

For my own part I look upon temperatures, unless they be subnormal, as of little value. Only last week I opened a large, stinking appendix abscess which had a normal temperature. I do not put much more reliance on the pulse. Not long ago I opened the abdomen of a man who had general suppurative peritonitis, due to perforation of the appendix, of four days' duration, and at the time he had a strong, full pulse of 80.

It is laid down in the text-books that in cases of appendicitis you should watch the pulse from hour to hour, and if it is increasing in frequency you should at once operate; but, as previously stated, I do not think you can put much dependence upon the pulse, and

if you wait and watch the pulse you may lose your patient.

I do not hold with those who recommend the indiscriminate removal of the normal appendix whenever you happen to have the abdomen opened, as I do not believe that the appendix is a functionless vestigial organ, and prefer to follow the teaching of Sir W. McEwen, who thinks it has an important function, and that you have no more right to remove it than you have a kidney or a spleen on the strength that they may become diseased; and I think that the American surgeon who suggested that all boys should be circumcised and appendicised on the eighth day is reducing surgery to a farce.

One word more, and that is—Supposing you open an appendix abscess I should go with those operators who, unless they actually see the appendix staring at them at the bottom of the cavity, would not go searching for it at the time and perhaps infect the general peritoneal cavity, but remove it later when things are quiescent.

(Read before the South Australian Branch of the British Medical Association.)

APPENDICITIS.

By W. Anstey Giles, M.B. and C.M. (Edin.), Hon. Surgeon, Adelaide Hospital; Lecturer on Clinical Surgery in the University of Adelaide.

APPENDICITIS, the most profound and treacherous of all abdominal diseases, has occupied such an amount of time and attention, especially of late years, and the literature on the subject is so voluminous, that I feel almost inclined to apologise to you for venturing to intrude this well-worn theme. My excuse must be that the disease occurs so frequently and gives us such rude shocks that we cannot have our thoughts too often directed to its infinite variety and vagaries. I willingly allow that I have been deceived and utterly misled by the period of calm associated with a certain type of these cases, and I have seen far better men than myself placed in the same awkward predicament. As my experience increased I became more alive to the difficulties and dangers, and this evening I desire to add yet another plea to the many already advanced advocating the greatest possible promptitude in making a diagnosis and in dealing surgically with such affections.

Without referring to the many changes in position which the appendix assumes, radiating as it does from the cæco-colon axis like

the spokes of a wheel, and largely influenced by the muscles of the abdominal wall, the condition of adjacent viscera and the length of its mesentery, I may simply emphasise the well-known fact that there are two general positions upon which the character of the attack will in a great measure depend. 1. The colonic (benign area of peritonitis), about 80 per cent. 2. The potential enteronic (dangerous area of peritonitis), about 20 per cent. The signification of recovery from perforated appendicitis frequently depends on which area, colonic or enteronic, the disaster occurred. The colonic area is an area of peritonitis and not absorption. The enteronic area is an area of absorption. In other words, the stomata vera in the colonic area are limited in number and hence absorption is limited. The stomata vera in the enteronic area (also diaphragmatic) are vast in number, and hence is an area of absorption (Byron Robinson).

I have no intention of trying your patience with a dissertation on appendicitis generally, but intend to refer only to cases which belong to the second group and are associated with septic changes of a deadly character.

It is now a well recognised fact that absorption of septic material goes on far more actively in the diaphragmatic area of peritoneum than in any other, and that in this portion phagocytosis is most efficient. A patient suffering from acute septic peritonitis has a better chance if the toxic influences can be kept away from this area. We know that the appendix, being an atrophied organ, its cells are devitalised with a limited blood lymph and nerve supply and deficient nourishment. It may be due to psoas, muscular trauma, or other cause diminishing the vitality of its walls that the virulent germs within its lumen set up a rapid and destructive process, and with startling suddenness some portion gives way allowing the contents to escape.

We know that pathogenic organisms may escape from the bowel without any actual perforation taking place. C. J. Bond, in his comprehensive paper on acute septic peritonitis, writes as follows:—"What does seem necessary to bring about this migration of germs seems to be a distended condition of the bowel wall with retarded blood supply and the presence in the lumen of a faecal culture medium and organisms of exalted virulence, such as those always found in all forms of intestinal obstruction and paresis."

Thus, while the empty bowel, with contracted walls well supplied with arterial blood, will powerfully resist the egress of organisms, a distended coil full of gas and liquid feces, with walls thinned by distension and dusky with viscous stasis, will readily allow their passage into the peritoneum."

Cases of diffuse septic peritonitis may be divided into three groups:—

1. The least fatal, where the staphylococcus albus is the first organism to migrate from the bowel and invade the peritoneum. It has only a low degree of virulence, and causes a rapid phagocytosis, which enables the peritoneum to more actively resist the subsequent invasion of the colon bacillus.

2. The more fatal class of case, where the colon bacillus is immediately liberated.

3. The worst infection of all is due to streptococci, when the patient may be killed outright by the virulence of the poison.

In private and hospital practice I claim to have had more than my fair share of these distressing cases, and for a period of years I had to chronicle a series of dismal failures, partly owing to surgical aid being summoned too tardily and partly to my defective technique—free irrigation of the peritoneal cavity with saline solution and excessive manipulation of intestine. Since Murphy published his series of splendid successes and minutely described his methods, surgeons may approach these cases more hopefully. Up to less than four years ago Murphy allows that over 80 per cent. of his cases terminated fatally. Now he claims a mortality of less than 30 per cent. He insists that the type of bacterial infection makes little difference. The time of operating varied from a few to 44 hours after perforation. Murphy states that his success is due to: (1) Relief of pressure at the place of pus infection. (2) Providing for continual drainage. (3) Avoiding manipulation, sponging and washing of the peritoneum, refraining from separating adhesions, and quick operating. (4) Aiding the elimination of ptomaines and toxins already in the blood by the administration of large quantities of fluid through the rectum. (5) Assisting with gravity the flow of pus to the least absorbent zone of the peritoneum—the pelvis—through the Fowler position.

When using the saline drip the fluid is best given through an ordinary vaginal nozzle supplied with several openings. A rubber tube connects the nozzle with a

vessel containing warm saline solution. The pressure of the column of water should be very slight—from 4 to 6 inches. The nozzle should extend just beyond the internal sphincter, and it can be secured to the thigh by strapping. I quote Murphy's directions, and have carried them out with the utmost care in every detail, with success in some cases which undoubtedly would, under the old technique, have proved fatal.

The diagnosis is not difficult if one sees the patient suffering from intense abdominal pain and vomiting, rapid pulse, temperature 101° F. or 102° F., with dusky colour, anxious expression of face, and general rigidity of abdominal muscles. But when the first acute pain and vomiting have subsided, and the patient expresses himself as feeling quite easy, with a normal pulse and temperature, a cheerful expression, flat and lax abdominal wall, then is the time that mistakes are made, valuable time is lost, and the golden opportunity allowed to slip by until advanced toxæmia causes symptoms that cannot be overlooked. An operation is performed at this stage without, in many instances, saving life.

I shall ever look back with regret upon a case which occurred in my practice years ago, and taught me a lesson never to be forgotten. It was my first introduction to that interval of calm and comparative comfort, after the rupture of an acutely inflamed appendix, calculated to deceive the medical practitioner and make the patient think his progress towards recovery is satisfactory. A young man was seized during the night with violent pains in the abdomen, chiefly in the epigastric region. He vomited freely, and for some hours continued to suffer acutely. His friends gave him some hot spirit and water, and subsequently some chlorodyne, and applied hot fomentations. I saw him about nine o'clock on the following morning lying comfortably in bed with normal temperature, a steady, regular pulse, under 80, abdomen perfectly flat, as he expressed it "a little sore," but no muscular rigidity. He was anxious to get up, but this was not allowed, and he was kept at rest on milk diet. An enema produced a copious evacuation of the bowels with very free passage of flatus. I watched this man for 48 hours, without being in any way apprehensive, before the flare-up occurred. On the evening of the second day I left him bright and cheerful with a promise that he should be about next day. He was

not so well next morning, had passed a restless night, exhibited definite abdominal distension, and though the temperature was normal his pulse was over 100. I arranged for an operation without delay. The appendix was gangrenous, and definite evidence of diffuse septic peritonitis was present. The peritoneal cavity was washed out with saline solution and drained, but the patient died five days subsequently.

The first success I obtained was about 18 months ago, when I changed my technique and acted upon the rules laid down by Murphy. A brief reference to this case will suffice. A man, about 34 years of age, who had never, to his knowledge, previously suffered from appendicitis, was gardening one afternoon when he suddenly experienced epigastric pain, which rapidly increased in intensity, necessitating discontinuance of work and a doctor's attendance. By the use of heat, rest and sedatives, the pain was relieved and the symptoms were masked for some days, producing that false security so frequently responsible for disaster. I saw him on the fourth day, when the anxious pain-racked expression, copious vomiting of green fluid, abdominal distension and rapid pulse indicated a grave crisis. I operated with as little delay as possible. On opening the peritoneal cavity a considerable quantity of thin turbid exudate escaped with flakes of lymph, and the coils of ileum which presented were markedly injected. The appendix, with its distal third gangrenous situated in the enteronic area and having a north-easterly direction, was removed. It was not protected by omentum or any limiting adhesions. The operation was rapidly concluded with the least possible disturbance of intestine; no attempt was made to wash out; no drain was inserted suprapubically, but a split rubber tube carrying a gauze wick was introduced through an opening made in the right loin. The after treatment was conducted upon Murphy's lines—enteroclysis, Fowler's position, etc., with a most gratifying result. For the first few days his condition was critical indeed, but after the fifth day steady progress was maintained, and the man made a satisfactory and complete recovery.

The following three cases deserve to be recorded, and support my contention.

G.M., *æt.* 11, was suddenly taken ill on January 18th of this year. He vomited and complained of pain, but it was not intense, principally in the right side of the abdomen.

The attack lasted about 12 hours. There was no rise of temperature and pulse rate normal. There was slight tenderness over the region of the appendix elicited on pressure, which lasted about four days, and during that time he was kept in bed. No abdominal distension. No tumour present. He was up and about, attending school and in his usual health until February 15th. On that day he attended his school in the afternoon, rowed a mile on the river, ate his evening meal with hearty appetite, and retired to bed about 9.30 in the best of spirits and apparently perfectly well. An hour later he awoke with severe pain in the abdomen, which rapidly increased and became unbearable. He vomited freely and was for some hours in great agony. At 4.30 a.m. my brother, Dr. Henry Giles, who attended him during the first attack, arrived on the scene. By that time he was much easier, the severe pain having left him about half an hour previously. With as little delay as possible arrangements were completed for his removal to Adelaide by rail, and at 7 a.m. I saw him in the private hospital. He was lying on his back in bed with legs extended and not in pain. Some tenderness was complained of all over the abdomen, but somewhat more definite in the right lower quadrant. The abdominal wall was soft and not distended. His temperature was normal and the pulse 84 per minute, soft and regular. The tongue was clean and moist. In spite of his apparently satisfactory state I agreed with my brother's diagnosis—a ruptured appendix—and decided to cut down without delay. When the peritoneum was opened flakes of lymph and turbid exudate in considerable quantity escaped. The appendix was readily discovered in the enteronic area, swollen, acutely inflamed, and perforated. A cigarette drain was introduced through a stab wound in the loin. The after treatment was conducted on Murphy's lines, and by the third day the peritoneum had successfully dealt with the toxins introduced and all danger was past.

B. McF., *æt.* about 28, warehouseman, about 2.30 in the afternoon while moving carpets was seized with severe abdominal pain, which doubled him up, but after an interval he was able to return to duty. He continued his work until the evening and then rode home on horseback. At 9 p.m. the pain became intense and seemed all over the abdomen. Dr. Scott was sent for and found his temperature and pulse normal, the patient

evidently suffering acutely, but no localised tenderness. He gave $\frac{1}{4}$ gr. morphia and ordered an enema. Next morning the pain was still present and referred more to the right hyperchondrium. There was some rigidity of the abdominal muscles and decided tenderness on pressure over the appendix. Temperature 100.4° F, pulse 110. Tongue coated. I saw him in consultation about 3 p.m., when the pain had almost disappeared, but prompt measures were indicated, and I operated within an hour. The flakes of lymph and turbid exudate appeared directly I cut through the peritoneum; the appendix was perforated and free in the enteronic area with a direction north-east. Recovery was rapid and complete. I congratulated Dr. Scott upon his diagnosis and promptitude on this occasion, and also upon a similar case some weeks later, which was dealt with in the same manner with an equally happy result.

J.S., *æt.* 62, carpenter, had an adenoma removed from his prostate by me in the Adelaide Hospital. Two months later I performed an operation upon him for the radical cure of a large left inguinal hernia. Primary union was obtained and the patient discharged quite well "except for a little uneasiness in the abdomen, which was not thought serious." This is the note made by the house surgeon appearing in the case-book. Next morning I was asked to see him at a house in North Adelaide and found that he had suffered acutely during the night with abdominal pain and had vomited frequently. The pain was referred principally to the right side, and the muscles were *en garde*. His temperature was normal and pulse 100 per minute. I sent him back to my ward with the least possible delay, and removed a gangrenous perforated appendix from the dangerous area. His recovery was rapid and uneventful under the same after treatment already described.

I think I may express the opinion that any one of these individuals would have died had a policy of non-intervention been adopted. Further, had the medical attendants been content to wait and watch until symptoms of a more urgent character developed, only harm would have resulted, and the chances of recovery after operation materially diminished. Such cases offer the strongest possible argument against the medical treatment of appendicitis which some men still advocate in their contributions to medical

literature. I am well aware of the fact that when the abdominal pain is limited to the right lower quadrants and the classical symptoms of appendicitis are present there is not as a rule grave danger, as the appendix is usually then in the comfortable position, and expectant treatment may be sufficient for that particular attack. But who can tell what risks and troubles may and probably will establish themselves in the future or when a fresh inflammatory process may develop?

I devoutly pray that should I ever have the misfortune to suffer in this manner, a man whose motto is "no delay" will take my case in hand.

(Read before the South Australian Branch of the British Medical Association.)

TREATMENT IN FULMINATING OR PERFORATIVE APPENDICITIS.

By Melville Jay, L.R.C.P. (Lond.), Adelaide

DR. GILES, in his account of several most interesting and instructive cases of acute or fulminating appendicitis, has shown the necessity of early operative interference in this class of case, if we are desirous of saving our patients' lives, and any remarks I have to make are to emphasise this necessity, and the danger of delay.

You are all so well acquainted with the manifold forms which attacks of appendicitis assume, that it would be of little further interest to you to relate in detail a number of particular cases, although in my experience one rarely finds two exactly alike.

Many cases are very easily diagnosed, especially when the local symptoms are plainly manifest, but in the more severe forms, those of fulminating appendicitis, a surgeon may be very easily misled. There may be no local symptoms, all the pain and trouble may appear to be originating in the epigastrium or on the left side of the abdomen, constipation or diarrhoea may be present, and there may be no rise of temperature or increased rapidity of pulse, and no rigidity of abdominal muscles.

But the worst class of cases, where most fatal mistakes are made, are those where the surgeon either has not seen the patient in the early part of the attack or has not paid sufficient attention to the early symptoms, and finds his patient, perhaps one or two days after the onset, free from pain, sickness, muscular rigidity, without any rise of tem-

perature or pulse, and no abdominal tenderness—though there is usually some tympanites persisting—and apparently recovering from an acute attack.

In many of these cases gangrene of the appendix or perforation has taken place, and a large amount of toxin has been absorbed, so much as apparently to create in the peritoneal surface an anæsthetic in place of a hyperæsthetic condition.

I suppose my experience in cases of the more acute form of appendicitis is similar to yours. I cannot recall a single case where I regret having operated as early as possible, but I can look back upon many cases in the last few years where delay in operating—in many cases from my own fault in not correctly diagnosing the true condition of affairs, and in others from inability in gaining permission to operate from the patient or relatives—has deprived the patient of any chance of living. In fact, I think it is safe to lay down the following axioms:—"In all fulminating cases of appendicitis operate without a moment's delay. Never be misled by a sudden subsidence of acute symptoms, or where the clinical picture is obscured by opium. Never persuade the patient to wait for the quiescent interval, but point out and emphasise the danger of delay. Immediate operation means saving life; delay often means death."

It has been a recognised rule by all up-to-date surgeons throughout the world that all cases where suppuration has taken place should be operated on without any delay, but unfortunately it has also been an accepted rule, with a large majority, that if a patient can be tided over the acute attack the best time to operate is during an interval. This idea has and will be the cause of very many deaths, and as was so forcibly pointed out by Dr. Steer Bowker in the last Congress, "We are taking an unjustifiable risk in attempting to tide a patient over the acute attack, i.e., provided we see the patient at the commencement of such an attack." As he pertinently asks: "Can any one of us tell what is going to be the end of even an apparently mild case?" If we wait for the quiescent interval we subject our patient to absolutely unknown risks, blindly guessing at the probable results of the attack.

Dr. Fowler, in his recent work on Surgery, in speaking of progressive appendicitis, advises operative interference if decided tenderness exists in the right iliac region at

the end of 24 hours from the commencement of the illness. He also draws attention to those cases where the symptoms are masked by the injudicious administration of opium—a most important point, and one always to be kept in mind. Again, Fowler remarks that when a certain diagnosis has been made, advantage should be taken of the first period when the appendix is free from acute infection to remove the organ. Curiously enough, Dr. Fowler, within a few months of publishing this work, died from the effects of an attack of appendicitis after operation. It would be interesting to know whether the surgeons waited for the quiescent interval in his case or not.

Enormous as Kelly's work on Appendicitis is, he does not discuss the necessity of early operation to any extent, but lays down the following rule:—"The patient should be constantly watched by a nurse, and if the surgeon makes his visit, at first, from two to four times a day, any increase in the symptoms denoting an undue extension of the disease will at once be noted, and the surgeon will be in readiness to abandon the medical treatment without a moment's delay, in order to attack the disease by the more direct measures of surgery."

If we operate early, we are in many cases better off than if we had taken the risk and waited. Suppuration may not have taken place; there may have been no perforation; adhesions—at any rate of a firm nature—may not have formed.

If the patient chances the unknown risk and survives, still in the large majority of cases an operation must ultimately take place, for there is no doubt if an appendix is once attacked, it is more prone to further attacks, differing from so many other diseases, where one attack gives immunity instead of the reverse.

The man in the street holds and expresses the opinion that the one idea of all surgeons is to use the knife in the most heartless and indiscriminate manner, but in the class of case under discussion the public have the fatal result of waiting so often brought before them that as a rule they do not hesitate to place themselves under a competent surgeon, and follow his advice as to operation. Thus the onus is practically thrown upon the medical man in attendance to decide as to whether an immediate operation is requisite or not. Unfortunately many medical men are very conservative in their methods of

treatment. The arguments used in days gone by by the physician in opposition to the surgeon to use palliative measures in all cases and trust to luck are not now so worthy of consideration, in view of the character and course of the cases of appendicitis now so frequently met with.

To illustrate the foregoing remarks, if you will allow me, I will give you the short notes of two out of many similar cases which I have met with recently.

A few months ago I was called to a young woman, whom I found suffering from intense pain in the epigastrium, constant vomiting, raised temperature, rapid pulse, slight tenderness over appendix, muscles more on guard on right than left side. No history of any previous attack of appendicitis. It was a Saturday morning, and I proposed sending her into hospital and operating at once, but, as she was staying with friends, they refused permission until her mother had been communicated with. The mother arrived in the afternoon and found her daughter apparently much better, and refused to allow an operation to be done. On Sunday morning all her symptoms had disappeared, except that there was some tympanites, and I was not satisfied with her appearance. Late on Sunday night she had some return of vomiting and pain, and I removed her to a private hospital and operated early on Monday morning, with Dr. Cavenagh-Mainwaring's assistance. We found the appendix had sloughed, there was a large hole in the cæcum, and the faecal contents were loose in the abdominal cavity, with a general peritonitis. Needless to say she did not recover.

Dr. Giles, out of consideration for me, has omitted to include in his list my brother's case. Living ten miles out of town, he was suddenly seized with severe pain in the region of the epigastrium, accompanied with dyspnoea, rapid action of heart, and followed by vomiting. Dr. Angove saw him during the attack, and at once telephoned me, saying the condition was a serious one. I drove out at once with a nurse, and on arrival found the acute symptoms had subsided, temperature subnormal, abdomen distended, with slight tenderness, most marked in the epigastric region. Vomiting and dyspnoea had ceased, and he appeared to be rapidly recovering from an acute gastric disturbance. He had never had any previous symptoms of appendicitis. During the night there was a recurrence of the symptoms, though not of

sent the ambulance out and had him removed to the private hospital. On arrival he expressed himself as feeling much better and free from pain, but there was still considerable distension and some tenderness. Within two hours of his arrival Dr. Giles operated upon him, expeditiously and with great skill, and found the appendix in a gangrenous condition in the enteronic area—north-easterly—with two openings with sloughing edges, a concretion behind each, and general peritonitis. He rallied well from the operation, but in spite of every effort, including efficient drainage, the raised sloping position, and constant "drip saline," he succumbed on the third day after the operation, having absorbed more toxin than he could eliminate.

As I have said before, I have chosen these two cases to illustrate the ill effects of delay, even of only a few hours, during which time the toxæmia gets beyond our control.

Professor Watson will tell you that the most important point in these cases is accurate diagnosis, both of the character and course of the attack, ascertaining in each individual case the exact position of the appendix and the relationship of the omentum to it, and the ability to form a correct prognosis from a knowledge of these conditions. Unfortunately all of us are not so gifted, and few of us are able to foretell the results of even moderately severe cases, and therefore I repeat: "Be on the safe side, and operate as quickly as the conditions will allow." It is practically a race between the surgeon and the toxin; the one who attacks first wins.

These remarks apply especially to the one class of appendicitis—the fulminating form in the enteronic area. I am not advocating operative interference in *all* cases.

(Read before the South Australian Branch of the British Medical Association.)

THE INTERNAL SECRETIONS OF THE OVARY AND TESTICLE IN RELATION TO THE SECRETIONS OF CERTAIN DUCTLESS GLANDS.

By Rees F. Llewellyn, M.B. (Syd.), Braidwood, N.S.W.

As simple and exophthalmic goitre are comparatively very common in the district in which I reside, I have carefully questioned and examined all patients presenting these derangements with a view to the elucidation of their ætiology.

During the last five years I have treated 13

tunities of observing about 150 cases of simple goitre. Of these cases of both varieties, only one occurred in a male patient—a man with simple goitre—so that any observations of my own with respect to a possible part played by the genital glands in these diseases were necessarily restricted to the ovaries. This great preponderance of so-called thyroid disease in the female sex, as compared with the male, is, in fact, one of the first points to strike the observer. Also one could not help being impressed by the frequent chronological relationship between the development of first symptoms and the most important physiological phenomena connected with the genital system, namely, puberty and adolescence, pregnancy, and the menopause, and also by the tendency of these diseases to exacerbate at the menstrual periods.

These considerations led me to the belief that exophthalmic goitre (and possibly also simple goitre) was closely associated with some alteration of the internal secretion of the ovary, either qualitative or quantitative. After carefully looking into the literature of the subject, I am able to direct attention to a large mass of evidence that appears to favour the theory which I now wish to enunciate, namely:—

That the internal secretions of the ovary and testicle contain one or more ingredients physiologically antagonistic to at least part of the secretion of the thyroid gland; and that such ingredients are the main agents in the neutralisation of the thyroid secretion in the body, during the reproductive period of life.

The following are among the chief points of favourable evidence:—

1. The function of the thyroid secretion is distinctly katabolic, as witness the runaway state of bodily activity, with glycosuria and loss of weight that follows the administration of the extract to excess;¹ while the function of the genital gland, especially the ovary, is just as definitely anabolic, as witness the fact of a constant necessity for surplus food in the female body to provide for the early maintenance of a possible embryo; as witness the increase in weight and slowing down of waste processes in my cases of Graves' disease under the influence of ovarian feeding, also to be referred to later; as witness, too, the increase in weight, blood value, and bodily strength that follows the taking of orchitic extract in asthenic states.

2. Diabetes is very liable to develop in

nary diabetes orchitic substance has given better results than pancreatic or any other organic extract.²

3. Reduction of obesity by thyroid feeding takes place at the expense of the proteids, whereas reduction of the obesity so common at or just after the menopause by ovarian feeding has been shown to take place at the expense of the carbo-hydrates.³

4. Anæmia is a constant accompaniment of exophthalmic goitre; while in anæmic states ovarian and testicular extracts produce a marked increase in blood value, the latter extract increasing the hæmoglobin by 3 to 14 per cent. in three weeks.

5. Gauthier, in 1897, discovered that union of bones, if delayed, is hastened wonderfully by thyroid feeding in the great majority of cases, and since that time the thyroid has come to be recognised as the main regulator of the fixation of calcium in the tissues. On the other hand Senator discovered that ovarian feeding causes the elimination of calcium; and Parhon and Papinian⁴ recommend the use of ovarian substance in acromegaly because of its eliminating action, which they consider desirable in a malady in which overgrowth of bone is a feature. When we remember the frequent menstrual disturbance and even amenorrhœa of acromegaly; and also that administration of thyroid has proved beneficial in a disease chiefly seen in pregnancy, viz., osteomalacia,⁵ while ovariectomy has cured it, the importance of this calcium-eliminating action of the ovary and of its contrast to the calcium-fixing action of the thyroid can scarcely be exaggerated.

6. In myxœdema the genital organs atrophy, and only one case of pregnancy⁶ in this disease has been recorded, so far as I can ascertain.

7. Shock, fright, worry and such like emotions are universally believed to profoundly affect the generative organs, and we frequently see them followed by amenorrhœa and hysterical symptoms; yet on the other hand we put down just such emotions among the common causes of Graves' disease. Does not this suggest the probability that Graves' disease developing in such a way is secondary to some effect—probably depressing—on the generative organs?

8. A large proportion of patients suffering from Graves' disease menstruate irregularly.

9. All the manifestations of hysteria—headache, flushings, hallucinations, sensations of heat and cold, nervousness—which

genital system, are common in exophthalmic goitre.

10. All varieties of goitre, especially parenchymatous and exophthalmic, tend to exacerbate at the menstrual periods,

11. All varieties of goitre frequently start at puberty, in adolescence, and sometimes at the menopause—all periods when the secretory activity of the ovary is likely to be feeble.

12. Palpable hypertrophy of the thyroid is said to occur in over 80 per cent. of pregnant women; exophthalmic goitre exacerbates in pregnancy more often than not, and may start in pregnancy or lactation.

13. The thymus gland, which ordinarily atrophies at puberty, is usually persistent in exophthalmic goitre.⁹ We know that in young cattle castration causes delay in the atrophy of the thymus; and, further, that removal of the thymus is followed by a rapid growth of the testicles in young guinea-pigs weighing not more than 300 grammes (Paton¹⁰), and we also know that exophthalmic goitre never occurs before puberty. Consequently we may conclude that the thymus is endeavouring by its persistence to prevent a disease which is allowed to exist by some deficiency of the ovary, and that ovarian secretion if efficient would have prevented it.

14. After ovariectomy and at the menopause the symptoms that are common—flushing, tremor, headache, nervousness, tachycardia, palpitation—which so closely resemble those of exophthalmic goitre must be due to some toxic elements in the circulation which are freed from restraint by the absence or deficiency of the ovary, and what is more natural than to suppose that such toxic elements come from the thyroid? That they are soon neutralised will be due to two factors—to wit, a fall of thyroidal activity consequent on the fall in oxidation that has been proved by Loewy and Richter¹ to follow ovariectomy (amounting in bitches actually to 10 per cent.!) and undoubtedly occurs during the menopause; and, secondly, to vicarious action of the suprarenals and possibly also the spleen. Shaw¹² points out that the probability of vicarious action of the suprarenal is very great, for testicle, ovary, and suprarenal body are all derived from the Wolffian body. Certain cells which appear among ovarian stroma cells, and which resemble closely the “interstitial” cells found between the tubules of the testicle, recall,

cortical cells of the suprarenal body. Further, cases have been reported by Bulloch, Sequira and Adams³ of carcinomata arising in the suprarenal body associated with precocious puberty in children, and it is known that carcinomata can secrete the substances usually formed by the epithelial structure from which they arise.

It will be useful now to briefly review the principal theories of the aetiology of so-called thyroid diseases.

In *simple goitre* it is believed that in some cases the gland is in full function, but has had to enlarge to cope with all its work, while in other cases it is deficient in tissue activity, but has enlarged with the same object in view. The frequent cure of these conditions by thyroid feeding seems to vouch for the truth of the theory, and there is no valid reason to doubt it. But a theory which leaves the primary cause—i.e., the further cause which lies behind that special need of the body—open to conjecture is a totally inadequate response to the demands of preventive medicine.

In the case of *exophthalmic goitre* a number of conflicting theories are still *sub judice* :—

(a). The statement that it is a neurosis is discredited by the alterations in the gland substance, which it is unnecessary to particularise here. But as each year passes it appears more and more certain that the explanation “neurosis” should be put in the same coffin with “teething”—the ready resource of the family doctor of a past generation.

(b). Some believe the symptoms due to disease of the sympathetic system, but operations for removal of cervical ganglia have failed to cure.

(c). Another theory much advocated until recently was that the parathyroids are deficient, allowing toxic thyroidal products to produce their effect unchecked. But feeding with parathyroidal substance has failed to cure the disease, and recently Humphrey, Shattock and Forsyth¹⁴ denied the importance of the glands—in this disease, at least. Vassale's¹⁵ work, also recent, seems to show that parathyroidal deficiency is the cause of eclampsia, and his results have received clinical confirmation. There is also some reason to suspect a connection between the parathyroids and paralysis agitans.

(d). The theory that there is qualitative, not quantitative, change in the thyroid secretion is discounted by the fact that thyroid feeding

Graves' disease, which rather favours the correctness of

(e). The theory that the symptoms of Graves' disease are due to the circulation in the blood of toxic thyroidal products which fail to be neutralised by some antagonistic product of the system—other than parathyroid secretion, previously mentioned. This view is now widely accepted, and appears by far the most logical; but here, as in simple goitre, the primary cause is not sought; and furthermore, no knowledge of the exact source of this deficient hypothetical antagonist is pretended to.

With regard to *myxœdema* and *cretinism*, the theory is that they are conditions of a diametrically opposite nature to exophthalmic goitre, and due to great deficiency or complete loss of thyroid function. Clinically, this antithesis exists, but I shall endeavour to show that pathologically this is not strictly correct. Each one of this group of diseases may run into either of the others, or two of them may co-exist, so that in proceeding to investigate their nature the first possibility which strikes one is that of a common cause, with variations of effect corresponding to variations of conditions within the body. One immediately looks for some extraneous condition under which all are more commonly found, and is faced with the fact that the preponderance of cases in *limestone* regions is so marked that thyroid diseases may be said to be practically restricted to such regions:

In my district goitre is exceptionally common, and the percentage of lime salts in most of the spring waters is very high. Almost all my cases of both varieties of goitre had used spring water—i.e., well water—for long periods. A few had always been in the habit of drinking rain water, but in nearly every case I found the chief article of diet to be bread made from the flour of wheat raised in the district.

Only a few days ago I saw a simple goitre in a girl of 13 who had lived chiefly on bread for two or three years. She was the only member of the family who drank large quantities of spring water, while the rest, none of whom had goitre, seldom drank anything else but tea, the lime, of course, being precipitated in boiling. I could quote many somewhat similar cases.

Goitre, too, I find more common in the country than in the town, where some of the bakers used bread brought from other parts and more rain water is used.

In this connection it is interesting to note that Fordyce recently found that the thyroid of rats fed on bread and milk showed signs of very much greater activity than that of rats fed on milk alone; and while this may have depended partly on the carbohydrate, the increased amount of calcium would be almost surely one causal factor. Halliburton states that in vegetables, as a rule, salts of potassium and magnesium predominate over those of calcium and sodium; but this would hardly be the case in flour grown in a limestone district. Most of my cases, again, came from the two localities in the district which are richest in limestone; and at one of these places, Major's Creek, all the women in whole families are affected.

Endemic goitre is very common in Derbyshire, Switzerland, parts of Italy, and parts of central Asia—all, I believe, limestone regions. It affects men also in these localities, and Russian soldiers stationed at Khokand, in Russian Turkestan, may have goitres in a few months. I take it that in such regions the percentage of lime in food or drink is exceptionally high. A microbic origin might be suggested, especially as an epidemic form is mentioned by Osler⁷, and a few cases of Graves' disease are said to exhibit irregular rises of temperature. I hope to demonstrate that if any germ has a specific action it is depressant to the genital gland, but that toxic action of that kind will be entirely unnecessary to the development of goitre.

Grant me that ovarian products will neutralise toxic thyroidal products, and I will undertake to show that a girl who is ingesting very large quantities of calcium will be extremely likely to develop simple goitre at puberty; and that if the quantities be sufficiently large and the ingestion kept up, she will develop symptoms suggestive of *myxœdema*, and that under certain circumstances she will develop exophthalmic goitre.

The main facts to bear in mind are that the thyroid fixes calcium in the body and that the ovary eliminates it, or rather presides over the elimination of it. During such a girl's childhood the demand of her bones and tissues for calcium will be very great; but so high will be the cellular activity of the thyroid at this time that the gland will be capable of meeting almost all demands without hypertrophy, and goitre will be unlikely to develop. At puberty the thymus will tend to persist if the call on its activity is emphatic enough, though it has a hereditary tendency

to atrophy. At this time the ovary comes into the field, but its function will in many cases not be fully developed till well on in adolescence. Thus we have an efficient organ faced by two slightly deficient organs—one of these tending to atrophy, the other more or less incompetent, and the latter possessing the property of suddenly undergoing wide variations in activity. Elimination will therefore be likely to be slightly inefficient about this time, and slight accumulation of calcium in the system above body needs will be favoured. This means a rise in the amount of calcium in the blood, which is already excessive, owing to the large amount in the water we have supposed her ingesting. Up to this time the thyroid has been able to deal with all calcium ingested without showing hypertrophy, but this further rise makes the hypertrophy visible; and as the stimulus of increased toxins wakes up the torpid ovary it will probably hypertrophy till it neutralises or nearly neutralises the thyroid toxins, and eliminates as much calcium as the body does not want. She will now present the picture of *simple goitre* with a *normal disposition*, or of *simple goitre* with a *slightly hysterical disposition*, and such a woman will be of ordinary build, or with a slight tendency to be thin. But if so much calcium comes in from the alimentary tract that the thyroid even by over-action and hypertrophy to the fullest extent allowed by the fuel (such as iodine) available and necessary for its activity cannot change the calcium into that form necessary for its retention in the tissues, and if at the same time the ovary (and its adjuvants, such as the suprarenal body) can hypertrophy sufficiently to neutralise thyroid toxins, we shall have another picture of a woman with *simple goitre* with a *phlegmatic disposition*—the latter being due to the excess of lime salts in circulation not acted upon by thyroid or ovary.

Both the thyroid and ovary may still be acting to the full extent that they act in health, but there is an ever-growing surplus of unassimilated calcium, and sooner or later that calcium will begin to exert toxic effects. We know that the effects of full doses of calcium chloride are “symptoms of muscular poisoning, with lowered temperature, slowed pulse, and a tendency to cardiac paralysis.” This is just the condition one would expect when two of the main regulators of metabolism, the anabolic ovary and katabolic thyroid, are reduced by some poisonous

agent to conditions of inactivity; and it is the precise condition found in myxœdema, minus the morphological changes in skin, hair, subcutaneous tissue, etc., seen in that disease. Those morphological changes are just what one would expect to take place if smaller doses of calcium chloride were given for long periods—or of any calcium salt, for that matter, for the chloride need not be considered. Consequently, I venture to assert that myxœdema is a condition of *chronic calcium intoxication*.

In all these conditions we have supposed the thyroidal and ovarian secretions to be about equal, the thyroidal toxins being neutralised. But the most interesting result of this recognition of the true nature of goitre is that we get a full explanation of certain anomalous cases which no previous theory has ever succeeded in accounting for. It will be seen that if the thyroidal secretion exceeds the ovarian secretion to any great extent, *even when both glands are very much depressed*, we shall get the characteristic symptoms of thyroidal poisoning added to, and more or less masking the primary condition of calcium poisoning, whether the latter be (1) simple goitre with no subjective symptoms of its own, (2) simple goitre with phlegmatic disposition, or (3) myxœdema.

In the first two cases we shall get a picture of ordinary exophthalmic goitre, for in the second case the thyroidal poisoning will completely remove all traces of that phlegmatic disposition which is so often seen in goitrous women, who are really semi-myxœdematous. In the third case we shall see the peculiar spectacle of the morphological changes of myxœdema combined with the neurotic symptoms of exophthalmic goitre.

It is obvious that this can only be very rare, for in low conditions of activity, and within the original limits of its own powers, the ovary will resist depression by calcium nearly as well as the thyroid, and will more easily succeed in neutralising thyroidal products. Slight nervous symptoms will occur in most cases of myxœdema, of course, corresponding to slight thyroidal excesses. On the other hand, at the top of the tree, as it were, in conditions of not very great calcium excess, the thyroid which started the fight unimpaired would find hypertrophy much easier than the ovary which began in a depressed condition, and the commonest cases will be those in which the thyroid just succeeds in dealing with the calcium, rendering it innocuous, the depressed ovary lagging

behind, and here there would be no true calcium intoxication, providing, of course, that fixation means rendering innocuous.

Any of the conditions may be primary, and may run into one another, if circumstances are favourable. I will, therefore, define exophthalmic goitre as "*thyro-intoxication, due to deficiency of ovarian internal secretion*, most commonly occurring after long-continued ingestion of calcium to excess and sometimes combined with or masking symptoms of chronic calcium intoxication." There is, of course, deficiency of the ovary's adjuvants in long-standing cases; but in brief attacks, if brought on by shock or fright, the suprarenal would probably be in full function, and compensatory hypertrophy would effect a cure. If disease of the suprarenal body occur, Addison's disease may complicate Graves' disease, a few cases having been reported. Acromegaly, too, many occur in combination with all forms of thyroid derangement, an interesting phenomenon of which time will not allow an examination.

A peculiar feature about the goitre in Graves' disease is that it may be purely vascular, the toxin thus exerting a relaxing effect on its own vessels. In such cases, of course, the goitre may completely disappear on recovery, while in some cases changes are found in the gland substance, and the enlargement, if there be fibroid change, may persist throughout life.

The effects of the toxin seem to undoubtedly be produced per medium of the central nervous system. The tendency to spontaneous cure may be accounted for by—(1) Removal of the common exciting cause, *i.e.*, excess of lime in food or water; (2) increase in activity of the eliminatory apparatus; (3) diminution in the supply of iodine, etc.; (4) exhaustion of the gland, in which case atrophy might supervene; (5) depression of thyroidal activity by a possible action of calcium on the nervous system.

The duration of that cure will depend upon the amount of calcium ingested after the cure and the state of the eliminatory organs.

The *exacerbation of goitres* at menstruation is a matter of intense interest, as it seems to me that the investigation of the behaviour of the thyroid in these diseases will open up the path to a clear understanding of the nature of menstruation. The theory of the antagonism between ovarian and thyroid secretions is neither confirmed nor contradicted by the fact that this exacerbation takes place, as either a rise or fall of ovarian

activity would, if sudden, act as a stimulus to the thyroid. There are certain facts, however, which point to the possibility that ovarian activity may be in its *negative* phase with regard to thyroidal activity at the period immediately preceding the menstrual flow, and not an increasingly positive phase, as one would think. I hope in the near future to examine the nature of menstruation in the light of quantitative analysis of the blood, with special reference to fluctuations in calcium salts.

After *ovariotomy* certain symptoms occur which recall those of thyroidism. The evidence in favour of energetic compensation by the suprarenal body has already been given.

In *pregnancy* over 80 per cent. of all thyroids hypertrophy palpably. This would be due to the increase of antitoxic products. In pregnancy in the subjects of Graves' disease we have a strange anomaly—an anabolic process proceeding within a katabolic woman. The only way in which this can be made possible is by the interposition of an organ which shuts off the excessive thyroidal products from the foetus. Such an organ exists, probably, in the corpus luteum, which must neutralise the toxic metabolites in the blood passing to the placenta. The corpus luteum must derive its antitoxic properties from the ovarian stroma, and if we take in conjunction with this the fact that dried corpus luteum has been found to relieve the nausea, vomiting and palpitation of pregnancy, we may find further evidence favourable to the thyro-antitoxic theory of the nature of internal ovarian secretion. The ovary at this time will be working at high pressure to supply material for both circulations, and deficiencies will be much commoner on its maternal side, for the cells of the corpus luteum will be sure to have a great affinity for at least the phosphorus of the ovary. Consequently the disease will tend to exacerbate, while the healthy parasite in the uterus will not suffer at all. Thus, by hypothecating two conditions, *viz.*—(1) antagonism between thyroid secretion and internal ovarian secretion, and (2) excessive ingestion of lime—it is found that a woman living under such conditions will inevitably develop symptoms resembling those of either simple or exophthalmic goitre or myxœdema; and *cretinism* will be explained by the assumption that there is hereditary tendency of sexual gland and thyroid to functionate feebly and large ingestion of lime by the mother.

As no other theory has so completely explained and harmonised all the varying phenomena of thyroid diseases, I think it is reasonable to claim acceptance of both hypotheses. The antagonism between the *therapeutic actions* of thyroïdal and internal genital secretions must, in consideration of known facts already quoted, be admitted as undeniable; but the ability of ovarian products to prevent the *toxic symptoms* caused by thyroïdal products has yet to be conceded. The second hypothesis should hardly require further substantiation. Where elimination falls below ingestion, accumulation must begin. It is impossible to suppose that there is no disease caused by its defective elimination before the individual reaches old age. We have chronic poisoning by lead, mercury, arsenic. Where in our text-books is chronic poisoning by calcium, one of the most important elements in our daily food? Somewhere in the world it must exist, and where are we to find most cases of it if not in limestone regions? We go to limestone regions and find a great preponderance of goitre and its attendant conditions in those parts of the world as compared with other parts, but no similar preponderance of any other diseases. Is it not perfectly logical to conclude that this is chronic calcium poisoning? No *absolute* excess will be necessary for the development of the disease, for it is purely a matter of the condition of the organs of elimination, and this will explain the occurrence of the disease in other than limestone regions. Tuberculosis of the adrenals complicated by serious disease or deficiency of the ovaries would, according to this view, bring on additional symptoms of thyroïdal disease because of defective elimination of calcium. A combination of the two diseases has been reported, but no statement made, I believe, as to the ovarian condition. Disease of any calcium eliminator will cause visible thyroïdal changes if the compensators are deficient in energy as compared with the thyroïd. The comparative immunity of men from these diseases is due probably to (1) absence in the testicle of the wide fluctuations in activity seen in the ovary at puberty, menstruation, in pregnancy and at the menopause; (2) the freer outdoor life of boys, which exercises the genital gland by promoting oxidation, of which it is a regulator; (3) greater power of eliminating calcium in testicle than ovary; (4) the preference of girls for a bread and butter

diet about the age of puberty. The strongest proof it would be possible to give in favour of these views would be:—(1) Cure of exophthalmic goitre by ovarian substance, with suprarenal extract added if there were low tension, and thyroid substance if the tension were high or if fixation were below ingestion; (2) cure of simple goitre by ovarian substance, or ovarian and thyroid substances in alternate doses or together, according to the nature of the case; (3) cure of myxœdema in the same way; (4) cure of all these diseases by limitation of calcium in the diet, assisted by organotherapy; (5) cure of these diseases by administration of serum obtained from animals fed on large doses of ovarian substance; (6) cure of hysteria, especially of that form seen at the menstrual periods, by ovarian feeding; (7) cure of all these conditions by the substitution of testicular extract for ovarian. Lloyd Jones¹⁹ obtained great improvement with didymin in cases of exophthalmic goitre.

Unfortunately, the only therapeutic evidence I am able to adduce from my own experience is the result of treatment of three cases of exophthalmic goitre by ovarian substance. Cases have been very scarce in my district since I decided to try this remedy, about two years ago. I was unaware until a couple of weeks ago that the antagonism between these glands had ever been remarked; but I then obtained Mr. H. Batty Shaw's volume on Organotherapy (from which I have derived much help in the preparation of this paper) and found in it a statement that Parhon and Goldstein²⁰ enter into a full discussion of the subject of antagonism between the thyroid and the ovary. He gives no particulars, and I surmise he would have done so had they sought to establish thyroid diseases on a basis of calcium elimination. Shaw states that "Ovarian substance has been employed in the treatment of Graves' disease, with improvement in some cases and complete cure in others. *Delanunay by means of this treatment succeeded in curing a case of Graves' disease occurring at the climacteric.* Senator failed to observe any improvement in exophthalmic goitre treated with oöphorin. Following is a short report of my three cases:—

CASE I.—Miss A.M., age 29. July 19th, 1906.—Patient was tall, thin, anæmic, and complained of frequent headache and palpitation, with sensations of heat and cold, irregular menstruation, and loss of weight. Said she had been feeling out of health for

some years, but had only recently noticed the goitre. Subjective symptoms were getting worse. Had been drinking very "hard" well water for years. Puberty at 16. Had been previously diagnosed early phthisis. I found a goitre of medium size with visible pulsation, thrill and double murmur. Exophthalmos very slight. Tremor slight. Pulse 124. Weight, 9st. 3 lb. Urine gave sugar tests. She was put on tablets of ovarian substance, gr. v. twice daily. July 22nd.—Feeling very much better in every way than for months. Appearance the same. Pulse 140. July 29th.—Feeling perfectly well. Appearance not so pale. Pulsation of goitre reduced, and no noticeable exophthalmos. Von Graefe's sign present. Pulse 140. Next day she had what I believe was a gastric crisis, and ovarian substance was discontinued for a week, during which subjective symptoms returned. August 5th.—Visibly not so well. Pulsation well marked. Pulse 120. Ovarian substance was again ordered, gr. v. three times a day. August 11th.—Feeling quite well again. Pulse 108. August 14th.—Goitre, murmur, thrill and pulsation gone. Pulse 80. Weight, 9 st. 12 lb.—gain of 9 lb. in less than one month. She has had to revert to the treatment several times since for a week or two, with intervals of about six weeks away from it. It always removes subjective symptoms in a few days. She never allows objective symptoms to appear. Always keeps a supply of the tablets.

CASE II.—Mrs. A.D., age 32; married nine years.

Sept. 28th, 1906.—Has been ill since recovery from measles seven years ago. Had a goitre at 12 or 13 years of age, which disappeared until after the attack of measles, but menses did not appear till she was nearly 17 years old; never lost much blood in menstruation, but was always regular. Has had three children. The attack of measles occurred three months after weaning first child. Had severe "cold" after measles for six weeks, and when she got up out of bed she had prominent eyes, pains in legs, nervousness, tremor and palpitation on slightest exertion. Had had a lot of worry about that time, and was frequently frightened by a relation of peculiar temperament. Always drank "hard" water. Went into Prince Alfred Hospital about four years ago; remained three months, but left if anything worse than before. Slight improvements for a short time intervals but she has never been anything

but very ill. Getting so bad lately that walking across a room causes severe palpitation and dyspnoea. Pain in eyes and severe headaches frequently. Bowels seldom act without large doses of Epsom salts.

On examination.—Goitre large, pulsating. Neck measures $15\frac{1}{2}$ inches. Well-marked thrill and double murmur. Palpitation, tremor, nervousness, all severe. Exophthalmos very marked, with Stellwag's and Von Graefe's signs. Pulse 146. Mitral systolic murmur and oedema of ankles. Unhealthy-looking, muddy complexion. Altogether a very bad case.

Sept. 29th.—Began taking ovarian substance gr. v. twice daily. Weight, 9st. 21 lb.

Oct. 6th.—Feels clearer in the head than she has done for the whole seven years of her illness. Improvement noticeable on third day of treatment. Headache less severe. Pulsation in goitre much less marked. Thrill and double murmur. Pulse 132. Palpitation and dyspnoea much improved.

Oct. 16th.—Palpitation and dyspnoea only come slightly on such exertion as she could not think of two or three weeks ago; skin much clearer. Has not had a headache for three or four days; bowels have tendency to move without aperients. Pulse 124. Neck, $14\frac{1}{2}$ inches. Pulsation in carotids and goitre hardly noticeable. Ovarian substance, gr. v., t.i.d.

Nov. 6th.—Feels quite well; no headache, dyspnoea, palpitation or constipation for two weeks. Exophthalmos about the same. Pulse 128, drops a beat and falters at irregular intervals; throbbing more pronounced, and loud double murmur. Says she has been working hard on her feet all day, which probably accounts for throbbing.

Dec. 4th.—Feels in perfect health. Neck, $13\frac{1}{2}$ inches. Exophthalmos much improved; looks a different woman; good complexion. Weight, 10 st., gain of 12 lb. in two months. Pulse 120, regular.

Dec. 26th.—Bowels regular; no headache. Menstruated December 21st to 23rd inclusive—one day longer than since illness began seven years ago; exacerbation not so bad as usual. Pulse 92, regular.

Jan. 8th.—Pulse 96. Ovarian substance, gr. v., *quater in die*.

Jan. 20th.—Menses three days ago; exacerbation of disease very slight. Weight, 10 st. Pulse 114. Neck, $13\frac{1}{2}$ inches. Exophthalmos much reduced, but still decided.

Feb. 5th.—Feels well. Pulse 96. Stopped ovarian substance.

Feb. 19th.—Feels well. Pulse 90 and regular. Thyroid and exophthalmos about the same; bowels regular. *Felt sick and had a headache for three or four days after discontinuing ovarian substance.*

This patient returned six weeks later, saying she had not felt well for two weeks. I found pulsation and marked thrill in goitre. Exophthalmos about the same; slight tremor; pulse 124. Ordered ovarian substance gr. v., t.i.d. She returned in two weeks with pulse 108 and pulsation not noticeable. She felt perfectly well since three days after beginning the ovarian feeding again. She is perfectly satisfied she will never be very ill again so long as she keeps the tablets by her.

CASE III.—Miss R.C., age 22.

April 8th, 1907.—Has drunk "hard" water all her life. Ill six months. Well-marked goitre, with pulsation and thrill. Headache, nervousness, tremor, palpitation, chills, and flushes. Looks ill and anæmic. Frequent stools, with five or six motions in a day; usually diarrhoea every second day. Acne on face; pulse 120-140. Ovarian substance ordered, gr. v., twice daily.

April 19th.—Looks much brighter, with healthier complexion. Says she has felt much better since two days after starting tablets than for last six months. Stools less frequent. Pulse 108-120. No visible pulsation in goitre.

April 24th.—Still improving; only one day of frequent stools in last week; looks healthier; acne disappearing; headaches disappearing. Pulse 84; weight increased 2 lb. At present this patient is still under treatment.

The results of treatment in these cases has been distinctly favourable, and though three cases form a very small basis for conclusions, the fact that in the first two cases discontinuance of the remedy was followed by return of the disease, and symptoms again promptly ceased on renewal of treatment, makes their results much more valuable guides than under ordinary circumstances would be the case.

Points worth remarking are:—1. The prompt appearance of a feeling of well-being, long absent, in all cases. 2. In Case II. relief of obstinate constipation and reduced severity of menstrual exacerbation. 3. Fall of pulse rate in all cases. 4. Diminution in size of goitres in all cases. 5. Marked increase in weight in all cases. 6. Improvement in condition of the blood in all cases. 7. In Case III., fall in frequency of stools.

8. Resistance of goitre and exophthalmos. All three patients were treated *without* rest in bed and *without* restriction of calcium in the diet.

These results closely simulate those obtained by use of serum, blood, or milk in thyroidectomised goats, and I believe the ovary to be the chief source of the antitoxic principle of these agents. Results with them have not quite come up to expectations, however, because I believe the removal of the animal's thyroid causes more or less atrophy of the ovary, and the antitoxin present in the serum will grow progressively less. A much better method would be to feed a thyroidectomised goat on fresh ovarian substance. The serum thus obtained would probably give better results than ovarian substance itself, because in feeding with gland substance we trust too much to the power of the diseased gland to assimilate it. No doubt many tissue extracts contain substances which in life would be further elaborated by the tissue processes. It seems to me that is one reason why the reports of investigators in organotherapy are so contradictory. Would it not be better in most cases, instead of feeding on gland substance, to treat with serum from an animal fed to excess on that extract? In myxœdema, it will be seen, further, that the usual failure to cure is that a very much depressed ovary cannot hypertrophy to health level at the stimulus of thyroid feeding, and as soon as the latter is stopped the condition relapses. The inability of the ovary to respond, too, will explain the extreme susceptibility of myxœdemic patients to thyroidism. In conclusion, I hope that a thorough trial will be given ovarian substance in affections referred commonly to an initial thyroid disturbance. I believe I have given the correct solution of the thyroid disease puzzle, and I claim for ovarian substance equality of importance with thyroid extract in the treatment of such disease.

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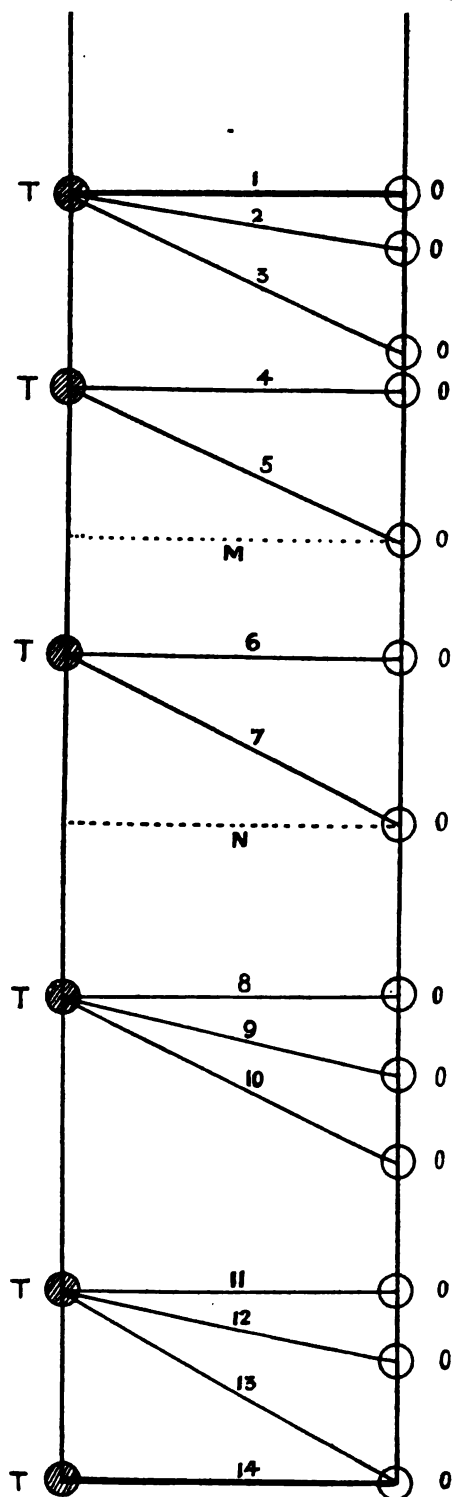


DIAGRAM illustrating Various Degrees of Activity of Thyroid and Ovary with respect to Total Calcium Content of Blood.

ADDENDA.

The accompanying diagram will present more clearly the situation in goitre—that is to say, in terms of the calcium theory of its origin. It illustrates various degrees of activity of the thyroid (and its possible adjuvants) and the ovary (and its adjuvants) in relation to the total calcium content of the blood, when this is increased.

T represents thyroidal activity.

O represents ovarian activity.

The numbered lines represent conditions possible in varying degrees of intoxication, which latter are measured by that portion of the upright column between line 1 and the particular line under consideration. Thus we have:—

1.—Both glands efficiently hypertrophied; no surplus calcium, therefore no intoxication; simple goitre with normal disposition, or possibly no palpable goitre at all.

2.—Ovarian activity slightly below thyroidal; simple goitre with rather hysterical disposition.

3.—Ovary markedly below thyroid; thyroid efficient but ovary not nearly so; exophthalmic goitre; probably by far the commonest form.

4.—Thyroid and ovary both inefficient, but equal in activity; simple goitre with slight calcium intoxication, which latter is represented by the column of calcium between lines 1 and 4.

5.—Ovary very decidedly below thyroid, but both inefficient; exophthalmic goitre masking the degree of calcium intoxication represented by the column of calcium between lines 1 and 5; if conditions are unchanged this will eventually become myxœdema.

6.—Thyroid and ovary both markedly depressed, but equal in activity; simple goitre with very phlegmatic temperament; very liable to run into myxœdema.

7.—Ovary well below thyroid; exophthalmic goitre masking calcium intoxication 1-7; therefore no signs of phlegmatic temperament.

8.—Both glands equal in activity, but very much depressed; calcium intoxication 1-8; myxœdema; common.

9.—Ovary slightly below thyroid; myxœdema with a few hysterical symptoms; common.

10.—Ovary well below thyroid, and both very much depressed; combination of myxœdema and exophthalmic goitre; very rare.

11.—Both glands profoundly depressed, but equal; profound myxœdema.

12.—Ovary slightly below thyroid; profound myxœdema, with a few hysterical symptoms.

13.—Ovarian (or testicular) and adjuvant activity nil; exophthalmic goitre masking fatal calcium poisoning; this would be the final condition of affairs in Osler's case, in which transient myxœdema was followed by violent exophthalmic goitre and death.

14.—Both glands inactive; absolute calcium poisoning; death.

NOTE.—The increase of calcium may be absolute, as is common in limestone districts, or relative, as may be seen anywhere in cases where the ovary is defective. Under the latter conditions, however, the ovary's compensators will be generally efficient, and preponderance of ingestion over elimination much rarer. If the increase is absolute, it is possible to conceive most of the illustrated conditions as occurring when the activity of both glands is even above normal for a time, until both glands succumb.

Fixation is in no way to be confused with ingestion. In a healthy adult ingestion, fixation and elimination are all equal. Accumulation is the difference between elimination and ingestion, and while accumulation exists, fixation may fluctuate up or down without affecting the degree of intoxication. The latter would therefore be more correctly represented in the diagram by a horizontal line drawn through the point marking the position of the ovary. Thus, in the conditions represented by the lines 5 and 7, the degree of intoxication would be really measured from the dotted lines m and n—unless, of course, the change which calcium undergoes in the thyroid renders it innocuous. One question not touched upon in the preceding paper was the whereabouts of the excess of calcium in the body. I have so frequently confirmed the connection between increased calcium ingestion and goitre that I feel justified in theorising to get over this difficulty. I would suggest that what calcium is not expended in the increase in weight in myxœdema may probably be found in the form of insoluble calcium soaps, such as occur in the normal faeces. The peculiar "solid œdema" of the disease is very suggestive of this. Some may ask why does not acromegaly develop? and the answer is that it does so in a small proportion of cases. I believe that acromegaly is of the nature of an excrescence on the face of calcium intoxication, in the same way as I have attempted to prove exophthalmic goitre is an excrescence. There is probably antagonism between pituitary body and thyroid or ovary. The pituitary body fluctuates with these organs, and when balance is disturbed, acromegaly develops. At any rate, acromegaly can exist with all forms of so-called thyroid disease. It is more than probable, in other words, that every case of thyroid disease is a potential case of acromegaly; or that acromegaly is one of the manifestations of chronic calcium poisoning. Other diseases upon the ætiology of which the recognition of calcium as the cause of goitre would almost certainly throw a light are diabetes, pernicious anemia, thymatoid arthritis, chloroæmia, rickets, fetal rickets, marasmus, etc.

(Read before the New South Wales Branch of the British Medical Association.)

A CASE OF SPINA BIFIDA.

By Dr. A. Lewis Levy, Sydney.

I THOUGHT it would be of interest to show you the result by treatment of a case of spina bifida. I saw this infant on January 22nd last, it then being 11 days old. There was a tumour in the lower dorsal region, the size and shape of this ring pessary. The covering of the tumour consisted for the most part of membrane, except at the centre and lower part, where there was an ulcerating surface of about half an inch wide and one inch long. At the base of the tumour on both sides there was a small reflection of skin over the membrane, and this reflection of skin was important as regards treatment. The tumour looked and felt as if it would not be long before rupture would take place. The margins of the bony opening in the spine could be distinctly made out. There were no malformations of the lower extremities, and there was slight hydrocephalus.

At first I thought operation would be the best treatment, but seeing that the results of this were so unsatisfactory, I decided to use injections of Morton's fluid. In the books on this condition it is stated that half a drachm to a drachm should be given at one injection. I did not treat this case in that manner.

On January 29th I injected 3 min., using a very fine needle, selecting as the site for injection the skin already referred to as being reflected over the membrane. The needle was passed not more than $\frac{1}{2}$ inch deep. One drop only of cerebro-spinal fluid escaped at each injection.

On the second day of treatment I injected 5 min. Two days after this there was no diminution in the size of the tumour, and as there was some cedema of both legs and abdomen, I did not use the injection. I noticed also that both legs were paralysed.

The cedema had passed away on the sixth day and I injected 7 min. I noticed a slight diminution in the size of the tumour, and the mother also observed it.

On the ninth day there was a decided diminution in the size, and I injected 10 min.

On the thirteenth day the tumour was evidently shrinking. I injected 10 min.

On the seventeenth day I injected 10 min.

I did not see the infant again for a week, when the tumour had completely shrunk, after six injections, as you will now see. The bony margins could still be felt, but you will notice that this opening is now closing up.

The infant is nearly four months old. You will observe that it can move its legs. It takes notice. Its bowels move fairly regularly, and there is no incontinence of urine. It is improving generally in condition, but you will note that there still remains a slight hydrocephalus, but that is not so marked as it was.

The point in the treatment of this case is that only 45 min. of Morton's fluid was used, given by six injections, extending over a period of 17 days, and that no cerebro-spinal fluid was drawn off prior to giving the first injection as is usually done,

It has occurred to me that if the hydrocephalus should persist or increase that I might be justified in using one or two further small injections of the Morton's fluid. I shall be glad to have the opinion of some of my colleagues on this point.

(Read before the New South Wales Branch of the British Medical Association.)

REVIEWS AND NOTICES OF BOOKS.

AIDS TO DENTAL SURGERY. By Arthur S. Underwood, M.R.C.S., L.D.S. (Eng.), and Douglas Gabell, M.R.C.S., L.R.C.P., L.D.S. (Eng.). London: Baillière, Tindall & Cox, Henrietta-street, Covent Garden. Sydney: L. Bruck.

The authors of this little book have evidently experienced some difficulty in condensing the subject matter to correspond with the object expressed by the title. The system adopted of dealing with the diseases of each tissue in a regular order is one which might with advantage be adopted in larger textbooks, and should prove a help to many students. Some of the views expressed are open to criticism on the ground of their incompleteness, but so long as the student remembers that this is merely an "aid," not a "textbook," he will find many occasions when this little work will assist him.

THE BACTERIOLOGICAL EXAMINATION OF WATER SUPPLIES. By W. G. Savage, B.Sc., M.D., D.P.H. Pages, xvi+297. 8vo. London: H. K. Lewis. 1906. Price, 6s 6d net.

The author in his preface, while recognising that there are many difficulties still to be cleared up, claims that bacteriological examination of water is now established on a scientific basis of ascertained fact. The book is an excellent *resumé* of the present-day situation. The subject-matter is presented in clear and precise diction, devoid of unnecessary verbal padding, and even though points about which much may be said are treated at times in a somewhat summary manner, yet compensation is afforded by full references, so that enquiring readers may, if so disposed, continue the pursuit of knowledge without delay.

During the last few years marked advance has been recorded both in the technique of bacteriological examination of water and in the interpretation of results secured by the various methods adopted. These aspects of the subject are treated in an admirable

manner. In addition, an appendix containing some useful matter is given, and, further, a long list of references is attached. A glance at this list will afford some indication of the amount and variety of the work carried out in different parts of the world in connection with this subject during very recent years, and will also show that the time is undoubtedly opportune for a systematic review. The author is to be congratulated on the seasonableness of his production, which will be welcomed by all those directly interested in water supplies, and which can furthermore be recommended to the profession generally as an up-to-date exposition of the subject.

DISEASES OF THE LIVER, GALL-BLADDER, AND BILE-DUCTS. By H. D. Rolleston, A.M., M.D. (Cantab.), F.R.C.P., Physician to St. George's Hospital, London; formerly Examiner in Medicine at the University of Durham, England. Octavo volume of 794 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders and Co. Melbourne: James Little. Price, 25s.

Probably in no clearer manner can be shown the great advances which have been made in the study of Medicine than by comparing this splendid text-book on Diseases of the Liver by Dr. Rolleston with the work on the same subject by Dr. Murchison, which was the standard work 20 or 30 years ago. The diseases of the gall-bladder and bile-duct were at that time but imperfectly understood. Bacteriology and clinical hæmatology have done much in recent times to elucidate the pathology and diagnosis of many of the marked conditions discussed in this volume. Dr. Rolleston has studied and written much on diseases of the liver, and the present work may be considered as the outcome of much clinical experience and pathological investigation. He has, we think, wisely abstained from giving any preliminary chapter on the anatomy and physiology of those parts, and refers the readers to special monographs and articles in this department. Great stress is laid on the morbid anatomy of each form of disease, and this is fully illustrated by reference to specimens which have come under the writer's own observation, as well as to those recorded by other pathologists. The same holds good with regard to clinical signs, diagnosis, treatment. So here we have not only a record of sound personal work, but a good record of all the best that has been written by others. The illustrations, excellently executed, are for the most part original, and add considerably to the value of the work. We can confidently recommend this as the most comprehensive and best text-book on this subject.

ATLAS AND TEXTBOOK OF HUMAN ANATOMY. By Prof. J. Sobotta, of Wurzburg. Edited with additions by J. Playfair McMurich, Ph.D., Prof. of Anatomy at the University of Michigan. Vol. I and II. Quarto volumes of 258 pages, containing 320 and 214 illustrations mostly in colours. Price, 25s each; complete, £3 15s. Philadelphia and London: W. B. Saunders & Co. Melbourne: James Little.

The aim of the authors has been to produce a combined atlas and textbook of anatomy which shall be of use to the student and practitioner, though not pretending to be a work for the finished anatomist. The outstanding feature of the first two volumes is the wealth of illustrations, always clear and in most cases artistic. A short explanatory text has been added. The B.N.A. nomenclature has been adopted fairly con-

sistently throughout, though in a somewhat half hearted manner in certain sections of the work. English translations, or equivalents, are given to assist the reader, and wisely so, as British anatomists do not seem to be able to bring themselves to adopt in its entirety the Basel nomenclature. Short embryological sketches are given, which add to the usefulness of the book. In both illustrations and text there occur inaccuracies which will probably disappear on revision. In our opinion it will be a useful work for the junior student of anatomy; nevertheless, we think that better and more useful atlases can be obtained at the same price.

THE MEDICAL ANNUAL, 1907; 25th year. Bristol: Messrs. John Wright & Co. A volume of 863 pages, fully illustrated; numerous coloured plates. Price, 7s 6d net.

We welcome this the 25th annual issue of the Medical Annual, since this work continues to be of invaluable assistance to practitioners in all departments of medicine. In this volume there are xxviii plates, vii of them coloured; in addition there are 91 illustrations of the text. Many articles in this issue bear evidence of the revolution which is taking place in medical thought. With a clearer knowledge of the functions of the blood in health and disease, new clinical methods and new criteria of therapeutic action are forced upon us. Part I consists of the Dictionary of Materia Medica and Therapeutics. Part II, the Dictionary of Treatment, a review of medical and surgical progress for 1906 by many contributors. Part III, miscellaneous, sanitation, legal decisions, appliances, pharmacy, books of the year, etc. Among the subjects dealt with may be mentioned serum-therapeutics, opsonins and vaccine inoculations, electro-therapeutics and radio-therapeutics, examination of the blood, cancer—its causes, pathology dissemination and treatment, Bier's treatment by passive congestion, leucocytosis, etc. Altogether this volume is a wonderful compendium of all the latest advances in the various methods of treatment, and the present issue is in every respect a distinct advance upon any other volume. We can heartily recommend it to every medical practitioner.

A MANUAL FOR NURSES ON ABDOMINAL SURGERY. By Harold Burrows, M.B., F.R.C.S., Assistant Surgeon to the Seamen's Hospital, Greenwich, and to the Bolingbroke Hospital, Wandsworth Common. Price, 2s 6d. London: The Scientific Press, Ltd.

For the intelligent care of a surgical case the nurse must know what is the matter with the patient and must be aware of the complications incidental to his malady. The object of the author in this little book has been, so far as abdominal surgery is concerned, to clear away the "obscuring undergrowth" to allow a clear view, so that the nurse may direct her course by the light of reason, and thus be a true and helpful help-mate to the surgeon. The manual is divided into 14 chapters (and an index) dealing with such subjects as symptoms in abdominal disease, peritonitis, hernia, affections of the stomach, intestinal obstruction, appendicitis, affections of the liver and gall-bladder, etc. The chief symptoms and complications following operations on the abdomen, such as shock, pain, vomiting, tympanites, etc., are briefly but clearly described. The little manual appears to be well suited for the purpose for which it was written, and should prove of great value to nurses engaged in nursing abdominal cases.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH MAY, 1907.

THE SYDNEY WATER SUPPLY.

As is well known, the metropolis of New South Wales has been increasing rapidly in population, and the suburban districts have been extending in area at a phenomenal rate in recent years. This great extension of the metropolitan area has naturally led to an increased drain on the water supply. Some three or four years ago, when the drought was at its height, the water supply in some of the suburbs was seriously deficient, and steps were then taken to increase the storage of water by the erection of a new dam at Cataract. Since that time a succession of moderately dry years has accentuated the necessity of an early addition to the catchment area and provision for the storage of water. At the present time the water in Prospect dam stands at 8 feet below overflow level, and unless heavy rain falls soon it will be necessary to resort to pumping.

Under these circumstances we ask - What is being done at the Cataract dam and storage basin, and why is the water at present impounded in that dam not available to reinforce the metropolitan water supply? We regret to learn that the answer to this question is that there is practically a dual control over the water supply works, and that some unhappy misunderstanding between the Board of Water Supply and Sewerage and the Public Works Department has led to a delay in the completion of the work necessary to render the additional water supply available for public use.

Last November the Board of Water Supply and Sewerage applied to the Public Works

Department to have all the scrub and undergrowth removed from the storage basin of the Cataract dam. On January 11th it was reported that the whole of the clearing had been completed below the 900 feet level. On March 30th, however, it was found that the work had only been imperfectly done, and that only below the 884 feet level, and, as a matter of fact, it was not till the middle of April that the work was seriously taken in hand. What has been the result? An analysis of the water in the Cataract dam, made by Dr. STOKES, medical officer to the Water and Sewerage Board, and an independent analysis by Mr. HAMLET, Government Analyst, showed that the water was charged with vegetable matter, the excess of which was derived from the submerged scrub and vegetable growth which should have been previously removed. In view of the fact that the Sydney water is unfiltered, this excess of vegetable matter in the Cataract dam water renders it unfit for use at present, and if the Cataract water were allowed to mix with the water in the Prospect dam the whole of the water supply of the metropolis would be contaminated.

The demand of the Water and Sewerage Board to have all the scrub and undergrowth removed to a distance of at least six feet from the water level, is only a reasonable one, especially when we learn that in America, where great attention has been paid to the construction of water supply works, it is considered necessary not only to remove all scrub and vegetable growth, but to strip the surface soil to a depth of 12 inches.

It is not contended by the Water and Sewerage Board that the Cataract water is actually injurious to health, but it is certainly true that a water with an excess of vegetable matter in solution will afford a very favourable medium for the growth and development of the organisms of the water-borne infectious

diseases, especially typhoid fever. The possibility of an infection of this water by the organism of typhoid is proved by the fact that several hundred men have been camped on the catchment area of the Cataract dam for some years, that cases of typhoid fever have occurred amongst these men in the past, and that quite recently two cases of this disease have been removed from this area. Moreover, although strict instructions are issued as to the disposal of excreta, constant complaints have been received of the existence of deposits of human excreta on the soil of the catchment area. It is thus easy to see how the water may be contaminated by the organism of typhoid fever, and it would be a difficult matter to say if such contamination occurred, when it would be safe to allow this water to reinforce the supply from the Prospect reservoir. These facts clearly show that it is high time that the dual control of the Sydney water supply was abolished, and the Board of Water Supply and Sewerage made fully responsible for the purity and efficiency of the water supply. We may congratulate the Board upon having in Dr. STOKES a medical officer who is keenly alive to the important questions raised, and, as a profession, we must feel that his attitude in refusing to consent to the contamination of the present supply from Prospect by a bad supply from the Cataract dam is in the best interests of the public health, and therefore one which we must heartily support.

RESEARCH IN TROPICAL DISEASES IN AUSTRALIA.

THE study of tropical diseases has received immense impetus in recent years in the Old World, and since a large part of the north of Australia lies within the tropics it is only fitting that we, too, should have some share in reaping the spoils from this rich field of

scientific inquiry. The Bishop of North Queensland, whose diocese of course is mainly within the tropics, has taken up the question and has written to the various Australian Universities outlining a scheme for the encouragement of research in the diseases of tropical Australia. The Townsville Hospital Committee have undertaken to provide an isolated building in the grounds of the hospital as an institute for the work of investigation, the oversight and direction of the institute to be in the hands of the medical faculties of the Universities of Adelaide, Melbourne and Sydney.

It is right, however, to point out that the study of tropical diseases has not by any means been neglected in Australia in the past, and, as Professor WELSH points out in a letter in our present issue, the practical study of tropical diseases forms a part of the ordinary course of study in pathology pursued by every student for a degree in medicine in the University of Sydney, and the same probably holds good for the other Australian Universities.

The Bishop's letter has already been considered by the three Australian Universities, and all have agreed to encourage research in tropical diseases. The exact form in which such research is to be carried out is, however, not yet decided. At the last meeting of the Senate of the Sydney University it was resolved, on the motion of Professor ANDERSON STUART, "That the Senate approves generally of the establishment of a Research Fellowship for the scientific study of the diseases of tropical Australia, and agrees to provide the Fellow with the necessary laboratory accommodation within the Medical School and under the direction of the Professor of Pathology, in order that the Research Fellow may have the advantage of the equipment of the pathological laboratory in addition to that provided at Townsville."

The resolution puts the matter in a practical form and suggests the institution of a Research Fellowship rather than a teaching institute or school of tropical medicine. As has been pointed out, the teaching of what is already known on this subject is now being done. What is required is that Australia should take a hand in furthering the knowledge of the diseases which may be peculiar to tropical Australia, and this research can only be carried on by competent investigators devoting their whole time to the work and provided with the necessary money and laboratory accommodation to enable them to prosecute their researches. Much of this work would necessitate a residence for a time in the tropics, and a small laboratory at the Townsville Hospital could be provided at comparatively little cost. But the incomplete examination of the material obtained would necessitate work in a fully equipped laboratory such as is provided in the pathological department of the University of Sydney.

Two further points, however, require consideration. Effective research work can only be done by a man thoroughly well trained and fully conversant with laboratory work, and specially the technical methods now in use in the Schools of Tropical Medicine in London and Liverpool. Hence the Fellow should either have already acquired this practical knowledge, or if not, he should spend the first part of his tenure of the fellowship in acquiring this at one of the schools mentioned.

The second point is the amount of money required, and how it is to be raised. We think that at least £300 or £400 per annum, exclusive of expenses, is the least that could be offered to a man qualified for this work. This would necessitate a capital sum probably considerably in excess of what would be raised by private subscription; but this

amount could easily be provided either by the Federal Government or by the Governments of the various States, and the money thus expended would repay interest a hundredfold in the saving of life and the maintenance of the health of the inhabitants of tropical Australia.

THE MONTH.

The Transactions of the Australasian Medical Congress.

AFTER the lapse of 18 months since the Australasian Medical Congress met in Adelaide, the Transactions have been published and forwarded to members. The volume is a credit to the Editorial Committee and to the South Australian Government Printer, but the long delay in its issue detracts from its value as a record of Australasian work in the various departments of medical and surgical science and as a medium for the publication of original work. Two chief causes are assigned for the delay: first, press of work in the Government Printing Office, and second, delay on the part of contributors of papers in furnishing the manuscripts and revises of proofs. But these causes must not be allowed to operate in the publication of future volumes of this kind. We understand that this matter is now engaging the attention of the committee of the next congress to be held in Melbourne in October, 1908, and it has been suggested that instead of the printing being done in the Government Printing Office, the Government should give a grant of money towards defraying the cost, and that the work should be entrusted to a private printing firm. If such an arrangement can be made, it will obviate the first cause of delay in the issue of the Transactions. To obviate the second cause, we understand that very stringent regulations will be imposed, and that no paper will be published in the Transactions unless the manuscripts, ready for the printer, are in the hands of the Editorial Committee at the close of the congress. It is only fair to those who take the trouble to bring the results of original work before the congress that no time should be lost in the publication of their work, and we sincerely hope that the issue of the Transactions of the next congress will not be so long delayed after the close of the session.

The Importation of Patent Medicines.

The Acting-Comptroller-General of Customs has issued instructions to collectors that reasonable discretion is to be exercised in dealing with patent medicines imported into the Commonwealth. Where the trade description shows the composition of the articles to be free from injurious substances, or where the composition is already known, or where the preparations are of established repute as remedial agents (!) no examination is to be enforced. Unless there is a strong suspicion of serious misrepresentation as to the composition of the preparation, no importation is to be detained. It is announced, further, that arrangements have been made by the Customs authorities for the Government Analysts of the various States to assist in the examinations and to advise whether the preparations are likely to be injurious to health. We think that these regulations will largely nullify any benefit to be derived from recent legislation on this subject. Many of the patent medicines "of established repute as remedial agents" (we are not told who is to decide this point) contain large amounts of alcohol and powerful drugs which it is desirable that the public should be prevented from obtaining. It would also appear that the Customs collectors and analytical chemists are to decide on the pharmacological and therapeutic effects of these preparations, with no reference to any medical men. If these methods of procedure are to be adopted, then the laws bearing on the importation of patent medicines may as well be removed from the Statute-book of the Commonwealth.

Certificates of Death.

Sir Alexander Peacock, Chief Secretary of Victoria, has been considering the present system of giving death certificates which has been in vogue at the Children's Hospital in Melbourne, and has written a strong minute condemning this procedure. He says:—"A medical practitioner should not give a certificate of death unless he personally attended the case within a reasonable time of the death of the patient. Under no other circumstances would he be justified in giving such certificate without first making a post-mortem examination. The medical practitioner who last attended the patient should in all cases be requested to certify, and if unable to do so a report should be furnished to the coroner. It appears that the resident staff of the Children's Hospital has been turning the functions of the coroner, and

giving certificates of death on evidence which they have obtained from the records of the institution." There is no doubt that death certificates are frequently given to the relatives of patients who have been discharged from hospital suffering from some incurable disease, even after the lapse of some time, and on the mere verbal statement by the friends of death having occurred, and this procedure does afford a loophole for the concealment of crime. We think that the whole question of certification of death by medical practitioners requires re-consideration, and we note that the Medico-Legal Society of London has recently memorialised the Lord Chancellor upon the subject. It is surrounded by difficulties, but there is no reason why a sound and rational method should not be adopted which would effectually prevent the concealment of crime.

School Hygiene.

We learn that a serious beginning has now been made in New South Wales in connection with the medical inspection of school children and with school hygiene generally. Dr. R. E. Roth has been appointed medical officer to the Department of Public Instruction, and his duties will include an annual inspection of the schools of the city and suburbs. Other matters, however, will also engage his attention, such as the hygienic conditions of the school premises, and he will report on any defects in school buildings that are found to be in any way detrimental to the health of the scholars. He will also examine children who appear to be suffering from any complaint likely to interfere with the progress of their education, and the parents will be notified of such cases, and advised where necessary to obtain proper treatment. He is also to observe what children in any school might be physically unfit for the ordinary physical exercises, or who might require special treatment in some form during their attendance at school. In connection with the medical inspection anthropometric data will be obtained with regard to the height and weight of scholars of different ages. This portion of the work will be done by the teachers once a year in each school, when every child will be tested, and a tabulated record kept. He will ascertain to what extent children in this State suffer from defective sight, and steps will be taken to regulate the work of the school in such a way as to adapt it for children who are found to be affected with defective vision.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

THE monthly meeting of the New South Wales Branch was held at the Royal Society's Room on April 26th; the President (Dr. B. J. Newmarch) in the chair. There were about 40 members present.

The minutes of the annual meeting were read and confirmed.

The PRESIDENT announced the election of the following new members:—Drs. F. G. Macneill Simpson, College-street; Margaret Harper, Macquarie-street; A. O. Howe, College-street; William Prichard Bassett, Bathurst; George Craig Harper, Temora; and the following nominations for membership:—Drs. James Percy Clifford, Randwick; Langlois Parker Johnston, Macquarie-street; A. Clarke Robinson, Jerilderie; James Lamrock, Kogarah; John A. Watt, Epping.

Dr. A. LEWIS LEVY read some "Notes of a case of Spina Bifida," and exhibited the patient.

Dr. CHENHALL said that Dr. Levy's case was interesting from several points of view. The tumour was a large one and was but slightly pedunculated. There was very little covering of skin, the tumour being mostly covered with membrane. Then, again, the amount of Morton's fluid used was much smaller than that usually advocated, and the non-withdrawal of fluid was particularly interesting. Usually for these infants even the advancements of surgery offer scant hope.

If such results can be assured in all cases by Dr. Levy's plan of treatment it should be of especial value in those rare cases of meningocele which occur at the root of the nose or within the nasal cavity owing to corresponding non-closure of the medullary plates at the anterior end of the neural tube, or at the occipital fontanelle due to dilatation of the fourth ventricle. It is certainly worthy of further trial.

Dr. SCOT SKIRVING congratulated Dr. Levy on the success of his treatment of the case. It was usual to draw off some of the fluid from the sac before injecting Morton's fluid. In Dr. Levy's case no preliminary drawing off fluid had been practised. One of the dangers in the removal of the fluid was the onset of convulsions, and he wished to emphasise the risk of this procedure. He illustrated this danger by his experience in a case of this nature some years ago. He warned the mother of the child of a possible untoward event, and after withdrawing not more than 30 drops of fluid, the child fell back dead in its mother's arms.

Dr. FIASCHI moved the following resolution:—"That a clinical meeting be held every month, apart from the general monthly meeting." He said: The promotion of medical or allied sciences is the first object mentioned in our articles of association, and the first of the means allowed for attaining this object is "by periodical meetings of the members of the Association and of the medical profession generally in different parts of this colony." When the New South Wales Branch of the British Medical Association was first formed in 1879, it was decided to have a monthly meeting during ten months of the year, and this decision has been steadily carried on ever since. Now, 27 years from the foundation of our branch, it is time to pause and enquire whether this decision framed at the

dawn of our Association fulfil the requirements of the present day. Have we, the citizens of this State, which in the last 27 years has doubled the number of its people, and members of a profession which also in this time has practically doubled its numbers, not vastly increased our opportunities for observation and collection of facts? Has not the establishment of a large medical faculty in our University, with all its attendant scientific aids to knowledge, greatly increased the responsibility of every one of us, both before our conscience and before the world at large? Has not the horizon of work in every branch of our profession—medical, surgical, or sanitary—vastly extended? Are we the medical men of a State counting now a million and a half souls, and of a metropolis numbering 538,800 people, with 113 country hospitals and 24 metropolitan hospitals—to be satisfied for the future with this humble outlet for the expression of our thoughts and the record of our observation—ten meetings of one hour and a half's duration in the whole year? I think the time has come for our Branch to increase our opportunities for meeting and for discussion. How should we do this? Merely increase the number of our general meetings, making them fortnightly instead of monthly, or should we in addition to the ordinary meetings have a special monthly meeting for the exclusive purpose of reading and discussing papers of a clinical character? I beg to represent to you that the second course is by far the best, for the following reasons:—(1) It will suit the various tastes. There are men amongst us whose hearts are set on matters concerning medical ethics and the interests of the profession. These by attending the general meetings shall have an opportunity of gratifying this taste. Others, instead, are indifferent to such questions, or do not take an active part in them, and prefer to let these matters be settled by others. These love medical art for art's sake, and would like better to have meetings set apart where they could hear the experiences of others in the clinical study of disease, or where they could bring before others their own experiences, and have their diagnosis and treatment fully discussed. (2) Because I think that clinical observation is the foundation of practical medicine and surgery, and that our Association cannot do too much to encourage and stimulate it. It is true there is the University, but for the mental pabulum of fully qualified men something more is required. There is something vivifying in the school of life and of mature experience, and this teaching can only be obtained from men who are in the thick of medical and surgical work. These men must have special meetings, and as we know hard workers are generally modest and retiring, it must be the duty of our President and Secretary to solicit them and induce them to record their experiences. There is no lack of good clinical material in Sydney and New South Wales nor of the intelligent comprehension of it. Often and often in the various consultations to which I am called, I have been surprised with the exceptional type of the case and the manner in which it has been grasped and studied by the attendant, and cannot help thinking: Why is not this unusual case recorded? In Europe or in America such a chance would not be lost. The only reply I can give to myself is that we have not the opportunity. For these reasons I think that the establishment of a meeting for the reading and discussing of clinical papers once a month will promote intelligent interest in medical science amongst us, keep up the tone of our work, and encourage our younger members to come out. Another point to con-

sider is our duty to medical science and to the medical profession of the world generally. It is not sufficient to keep oneself abreast with the times, and to be able to do our work as well as it is done at the same time in other countries. We must try to break up new ground or at any rate keep on the front line of new work, and contribute to the general knowledge by recording our failures and successes. This we are doing only imperfectly as yet. Last year only 16 papers were read by this Branch, and whilst the quality of them was good, I think that, considering the exceptional opportunities we have in New South Wales, the quantity was lamentably small. To remedy this defect I see only one remedy, and that is to have more meetings. If the New South Wales Branch will not see its way to do it, I venture to say that before long another Association will inevitably form, for we are not going to stagnate. However, just now we are all agreed that union is our best policy, and for that very valid reason I beg to move—"That a clinical meeting be held every month, apart from the general meeting."

Dr. SCOT SKIRVING seconded the resolution with much pleasure, as he felt sure that such a procedure would benefit the whole body of the profession. At the general meetings too much time was often taken up with questions of medical politics and too little with matters of academic and clinical interest. In a new country, where there was not a leisured class of medical men or body of scientific investigators, there was not the opportunity for original work, but they could all be good clinicians. He was impressed with the skill and enthusiasm for clinical work in the younger generation of the profession here. In the kind of meeting suggested—not as a rival to the general meetings—matters of clinical, rather than systematic, interest would be discussed, such as clinical papers with living exhibits. Meetings of that class would be instructive to all, as they would afford everyone an opportunity of making use of the material at his hand.

The PRESIDENT said that the Council had not overlooked this question, but it was largely a matter of expense and securing a suitable room. He suggested that the resolution might be amended so as to take the form of a request to the Council to take steps to institute such meetings.

Dr. FIASCHI, with the consent of Dr. Scot Skirving, agreed to that alteration.

Dr. GORDON CRAIG thought they should pause before committing themselves definitely to holding a meeting every month, as suitable material might not be forthcoming.

The HON. SECRETARY read the resolution as amended:—"That this general meeting of the Branch request the Council to arrange if possible for holding a clinical meeting every month apart from the general monthly meeting."

Dr. LITCHFIELD asked Dr. Fiaschi what he meant exactly by a clinical meeting? Were all clinical papers and living exhibits to be given at those special meetings, and the general meetings to be devoted to medical politics?

Dr. FIASCHI: No.

The PRESIDENT thought that the regulations for the conduct of the clinical meetings should be left in the hands of the Council.

The resolution as amended was then carried unanimously.

Dr. REES LLEWELLYN (Braidwood) read a paper on "The Internal Secretions of the Ovary and Testicle in Relation to the Secretions of certain Ductless Glands."

Dr. STOKES considered the paper full of interesting suggestions, and required careful scrutiny before one could criticise it. The association of goitre with limestone districts had long been noticed. Dr. Llewellyn's district—Braidwood—was not the only one in New South Wales which had a water supply from a limestone area. Many parts of the Hunter River district had a supply of very hard water, and the supply was established, whereas in Braidwood the supply was a casual one, mostly from wells. Hence, if the hard water supply of Braidwood accounted for the large number of cases of goitre there, one would expect to find a still larger number of cases from the Hunter River districts. He did not know if that were the case or not.

Dr. GORDON CRAIG had had three cases of exophthalmic goitre from one district, viz., Rylstone. As that was not a very common disease, the fact of three cases coming from one district under the notice of one practitioner pointed to the existence of some local condition as an etiological factor in the disease.

Dr. F. ANTILL POCKLEY knew of the existence of a very large number of cases of goitre in the Mudgee district, which was also a limestone country.

Dr. CHENHALL congratulated Dr. Llewellyn upon his research work in connection with goitre and upon the results of treatment. The interesting hypotheses enunciated were open to some criticism, and it was to be regretted that the limited time at disposal for reading the paper and the difficulty of hearing in the room prevented one following the speaker's remarks as closely as their careful preparation warranted. Without doubt the genital glands possess functions apart from those of reproduction. By these functions of internal secretion essentials to the economy of metabolism and life are produced, and their effects are shown before the reproductive period of life as well as during that period. But the theory of "physiological antagonism" seemed to him untenable, since physiological processes are essentially conservative and economical, whereas antagonism implies waste of energy and must be abnormal. If the function of the thyroid gland be regarded as excretory the difficulty of accepting such a view becomes lessened, for one may admit the possibility, nay, the advantages of neutralisation of such harmful waste products by a secretion from the testicle or ovary, or, at any rate, of some influence towards further katabolism and elimination from the body. But the internal secretion of the thyroid gland is essential to normal life since its absence causes myxœdema, and administration of thyroid extract is the best treatment for this disease. The occurrence of both exophthalmic goitre and myxœdema at least five times more frequently among females suggests a closer relationship between the two glands in them than among males, and warranted treatment by ovarian substance, though much of our efforts must at present remain empirical. Exophthalmic goitre is, so far as we know at present, due to *hyperthyrea* and myxœdema to *athyrea*, and in myxœdema administration of thyroid extract compensates for the absence of normal secretion. If Dr. Llewellyn will so modify his view as to admit, not that neutralisation of a physiological secretion occurs, but that the internal secretion of the ovary or testicle or ovarian substance, when administered, so acts upon the thyroid, either directly or through the nervous system as to control its secretion and to modify or diminish it when abnormal or excessive, the enunciated theory will be easier of acceptance. We are indebted to Dr. Llewellyn for the exhaustive preparation of a

paper which supplies so much food for thought and which is pregnant with possibilities in regard to treatment.

Dr. LLEWELLYN replied.

Dr. CHARLES MACLAURIN read some notes of two cases of Malignant Disease treated with Trypsin.

The PRESIDENT considered they were indebted to Dr. MacLaurin for giving them his experience of the trypsin treatment of cancer. So far as he could judge, the method appeared useless.

Dr. MACDONALD GILL read a paper on "Lead Poisoning in Children."

Dr. F. ANTILL POCKLEY had listened to the paper by Dr. Lockhart Gibson at the Medical Congress in Adelaide in 1906, and Dr. Gibson found that often neuritis was commoner in girls than boys. He attributed the poisoning to the wooden painted verandahs in which the children played, and he had found it commonest in children who were in the habit of biting their nails. He had had a case some 20 years ago of optic neuritis with paralysis of the limbs, which he had showed before this Branch, the exact nature of which was obscure, but he had no doubt now that it was a case of lead poisoning.

Dr. LAWES was interested in Dr. Gill's paper, as he had seen a large number of cases of lead poisoning in children when he was resident medical officer at the Children's Hospital in Brisbane. At first the symptoms in these cases were not recognised as due to lead poisoning. One of the staff, however, suggested this diagnosis, and examination of the urine revealed the presence of lead. The blue line on the gums was a most uncertain symptom; in fact, in most cases it was not present. Many cases recovered without any treatment; others recovered only partially, the lower limbs being more affected than the upper. He had seen two cases develop optic neuritis. The greater prevalence of this complaint in Brisbane he believed to be partly accounted for by the fact that there were many more painted houses in Brisbane than in Sydney.

The PRESIDENT asked if there were any definite period between the probable ingestion of the poison and the development of the symptoms?

Dr. MACDONALD GILL, in reply to the President, said that only a few days had elapsed after the ingestion of the poison before the symptoms developed. He had only dealt with one form that lead poisoning in children took. Dr. Gibson, of Brisbane, had paid especial attention to the form in which the symptoms resembled those of basal meningitis, and in which the outstanding feature was optic neuritis, frequently resulting in blindness. The undoubted infrequency of this disease in Sydney and its great frequency in Brisbane had never been satisfactorily explained.

AN extraordinary general meeting was held at the Royal Society's room on Friday, May 10th, 1907; Dr. Newmarch (President) in the chair. There were 73 members present.

The minutes of the previous meeting were read and confirmed.

Dr. POCKLEY moved the following resolution:—"That this Branch wishes to place on record its sincere sympathy with Dr. Chisholm Ross in his recent trouble, and to congratulate him on his complete public vindication from the charges brought against him."

Seconded by Dr. CRAIG, and carried unanimously.

The HON. SECRETARY (Dr. Todd) moved the following resolution on behalf of the Council—"That a resolution passed at a general meeting held on November

25th, 1898, viz.—'That any medical man who has held or shall hold the position of medical officer to any society which has been or shall be declared by the Council of this Association to be inimical to the interests of the medical profession, or who shall have held any lodge at annual fees below those approved of by the now existing local medical associations of the district in which the lodge is situated, shall be ineligible for membership of this Association for the period of five years from the date of his ceasing to hold such appointments (except under exceptional circumstances), and shall not be met in consultation by members of this Association during the period of disqualification for its membership'—be amended by the omission of the words in italics, and by the insertion, after the words 'is situated, shall,' of the words 'except in such circumstances as the Council may decide to be exceptional, be ineligible for membership of the Association for a period to be determined by the Council, not exceeding five years from the date of his ceasing to hold such appointment, and shall, during such period as the Council may determine, not be met in consultation by the members of the Association.'"

Seconded by Dr. CLARENCE READ.

The question was discussed by Drs. McClelland, Ludowici, Levy, Palmer, Blackburn, Pockley, Sinclair Gillies, Griffiths, Lawes, Binney and Abbott.

Dr. PALMER moved the following amendments:—"Now existing" in line 5 to be omitted. The following words to be added after the word "shall" in line 5—"except in such circumstances as the Council may decide to be exceptional," and the words "(except under exceptional circumstances)" in line 7 to be omitted.

The amendments were carried, and the resolution as amended was carried—"That any medical man who has held or shall hold the position of medical officer to any society which has been or shall be declared by the Council of this Association to be inimical to the interests of the medical profession or who shall have held any lodge at annual fees per member below those approved of by the local medical associations of the district in which the lodge is situated shall, except in such circumstances as the Council may decide to be exceptional, be ineligible for membership of this Association for the period of five years from the date of his ceasing to hold such appointments, and shall not be met in consultation by members of this Association during the period of disqualification for its membership."

The HON. SECRETARY, on behalf of the Council, moved the following resolutions:—

"That the 'form of Agreement with Friendly Societies,' published as 'Supplement to the AUSTRALASIAN MEDICAL GAZETTE, September 20th, 1906,' and approved by the general meeting held on November 9th, 1906, be amended, in accordance with recommendations made at a conference between representatives of the Council and of the Friendly Societies' Association, held on December 31st, 1906, and February 28th, 1907, which were as follow, viz.: Clause 1.—By the insertion of the words herein printed in italics: '1. To examine, after receiving a request in writing from the secretary of the said lodge so to do, all candidates, who are eligible under this agreement, for membership of the said lodge, and their wives, suspended members of the said lodge and their wives, and members presenting clearances from other lodges, and their wives. (*Bona-fide transfers by clearance to be passed to lodges without examination, provided the applicant is in good health.*) To furnish the said lodge with a certificate

of each and every such examination on the form supplied by the lodge. For every such examination a fee of 2s 6d shall be paid to the medical officer. If the candidate passes the medical examination the fee so paid shall be credited to him, as part of his first quarter's payment, but, if he fails to pass, it shall be retained by the medical officer. Such candidate or member, if passed, shall remain upon the examining medical officer's list for at least three months after his admission to the lodge. The medical officer shall reject anyone who, in his opinion, is not of sound constitution and in good health.' Clause 3.—After the word 'those,' insert the words 'medical men.' Clause 4 (b).—Omit 'all'; (c) omit 'guaranteed by the said lodge,' and insert in lieu thereof 'paid in advance to the medical officer.' Clause 10.—Omit '(certain country districts), e.g.: omit 'etc.,' and insert in lieu thereof, 'and such minor operations.' Clause commencing 'And it is also agreed that'—(a) Insert before the word 'quarter' the words 'month or'; (c) omit 'seven,' and insert in lieu thereof, 'fourteen.' Clause commencing 'And this agreement finally witnesseth' omit the whole. Insert in lieu thereof, 'And this agreement finally witnesseth that any person joining the said lodge on and after a date to be fixed not later than the 28th February, 1908, shall be "deemed ineligible for any benefits or privileges hereinbefore provided if on joining the lodge he and his wife have joint income exceeding £200 per annum, or at any time thereafter should their joint income exceed £300 per year."'

Seconded by Dr. POCKLEY, and carried.

Dr. CRAGO moved—"That the Council take steps to acquire for the Association premises suitable for offices, library, committee rooms, meeting hall, and for the other purposes of the Association." In moving the resolution standing in his name he said he would endeavour to be as brief as possible. He felt sure that he had the approval of every member present when he said that the Branch had now reached such a stage of its development that it required a home of its own, which would prove a rallying place for members, and where suitable provision could be made for all the requirements of the Branch, such as (1) library and reading-rooms; (2) a hall for the general meetings; (3) offices for Council meetings and for the business of the *A.M. Gazette*, and for social comforts. The late Dr. Huxtable read a paper before the Branch in April, 1894 (see *A.M. Gazette* of that date) on the "Aims and Policy of the New South Wales Branch of the B.M.A.," in which he brought lucidly before them several things to be aimed at. Some of those aims had been attained, as—(1) The acquirement of an official publication for the Branch; (2) an increase in the number of councillors (from 10 to 14), and (3) a large increase in membership. The number of members had more than doubled since the purchase of the *Gazette*. A library on a small scale had also been started. Some of the things mentioned, as (a) reduction in the amount paid for the *B.M.J.*, in consideration of certain disabilities they were under, compared with branches in the United Kingdom, and (b) the formation of sub-branches, with the right to each sub-branch of electing a member of the Council, had not yet been realised. The questions he wished particularly to raise were: (1) Should they make a determined effort to secure premises of their own as a home for the Branch? (2) If No. 1 is approved of, should they confine their efforts to providing for the reasonable requirements of the Branch for the next generation? or would they build premises larger than were required for use of the Branch, so as to let off some portions of order to reduce the interest rental? (3) Where

should the home be located? (4) How should they finance the undertaking? To take these questions *seriatim*: (1) Judging from the remarks made to him on the subject by members during the past year or so, he thought they were pretty well agreed that such an effort should be made without further delay, so he would not waste time discussing it. (2) There was room for difference of opinion on this question. If the funds would permit, i.e., if they could meet the interest rental without crippling their finances, it would be much better not to bother themselves with rooms for letting. To do that would necessitate an expenditure of fully terest rental of £300 per annum, which was beyond their £7000 for land and building and leave them with an income. On the other hand, if they could raise £10,000, they could sublet what would go a long way towards covering the interest on the whole undertaking, and so stand at a nominal rental. That was a question for decision after mature consideration and after taking the opinions of some practical business men. (3) Where should their home be located? First and foremost, away from a tramline. During the past few months he had had enquiries made as to available sites and as to the value of land. Two sites were available in Phillip-street, one in Hunter-street, and one in Jamieson-street; these were all away from tramlines. Phillip-street, between King and Hunter-streets, and the top of Hunter-street commended themselves to him as being most suitably situated and free from trams; Jamieson-street was not quite so central, although in some respects, especially as regards quietness and the price of land, it was well suited. He was of opinion, however, that offices would not let there as well as in Hunter- or Phillip-streets, so that the advantage as to the cost of land might be more than lost on that account. Lastly, and chiefly, as to ways and means. By the end of this year they would have fully £1000 at their disposal between the Branch and the *Gazette* funds. He reckoned that £3000 would be necessary for the purchase of land. Debentures bearing interest at $4\frac{1}{2}$ or 5 per cent. could be issued to members, and he thought there would be no difficulty in raising sufficient money from members to complete the purchase of the land. Having land valued at £3000 there would be no difficulty in raising the money necessary for the building on mortgage at 4 to $4\frac{1}{2}$ per cent. Some difficulty might be experienced in paying the interest while the building was in course of erection, but he ventured to think that the members had sufficient *esprit de corps* and grit in them to either forego interest on their debentures for a year or to contribute something towards a "library fund" for a time in order to help forward such a movement as the acquirement of premises of their own. He begged to move—"That the Council take steps to acquire for the Association premises suitable for offices, library, committee rooms, meeting hall, and for the other purposes of the Association."

Seconded by Dr. JAMES ADAM DICK, and carried.

Dr. McKAY moved—"That a member of the Association was guilty of unprofessional conduct when he took to his private hospital and operated on a patient that he had seen in consultation with the mover."

Seconded by Dr. HINDER *pro forma*.

A discussion ensued, in which Drs. MacCormick, Todd, Crago, Bruce, Scot Skirving and Gordon Craig took part.

Dr. McKAY replied, and the resolution was negatived almost unanimously.

Council Meeting.

THE Council met at the Association Rooms on Monday, April 8th, 1907. Present: Dr. Newmarch (President), Drs. Rennie, Crago, Hinder, Brady, Jenkins, Clarence Read, MacCormick, Abbott.

The minutes of the previous meeting were read and confirmed.

Apologies from Drs. Todd and Pockley were received.

The following members were elected:—Dr. T. C. Camm, of St. Marys; Dr. Ernest Culpin, of Kurri Kurri; Dr. J. R. Lloyd Jones, of Guyra; Dr. Prichard Bassett, of Bathurst; Dr. Macneill Simpson, of College-street, Sydney; Dr. A. O. Howse, of College-street, Sydney; Dr. G. C. Harper, of Temora; Dr. Margaret Harper, of Macquarie-street, Sydney.

Dr. R. H. Todd was elected Hon. Secretary for the ensuing year.

Dr. W. H. Crago was elected Hon. Treasurer.

Dr. Rennie was re-elected editor of the AUSTRALASIAN MEDICAL GAZETTE, and Dr. Crago manager for the A. M. GAZETTE.

Treasurer's statement.—General account: credit balance, £690 11s 4d; GAZETTE balance, £340 8s 6d.

Some accounts were passed for payment.

Royal Charter and By-laws.—Resolved—That the question be referred to a sub-committee consisting of Drs. Newmarch, Todd and Crago.

Letter from Dr. W. J. McKay with reference to a question of ethics was read, and asking for a resolution to be put on the business paper for a special meeting. Resolved—That the resolution be placed on the business paper.

Coroners' Inquests.—Letter from the Attorney-General on the question was read.

Letter from Dr. Clubbe, calling attention to witnesses' fees for civil actions. Resolved—That the matter be referred to the Attorney-General.

Letter from Dr. MacLennan, of Young, asking for particulars of Dr. Mooney, late of Cootamundra. Received.

Dr. Clarence Read submitted a question of ethics. A medical officer of the Board of Health visited a patient of his (Dr. Read's) without his knowledge. Resolved—That Dr. Crago be asked to interview the President of the Board of Health.

Correspondence re the Moree and District Medical Association, and enclosing the rules of the Association, and Hon. Secretary's letter asking if the Association were a proprietary one, was read. Resolved—That the action of the Hon. Secretary be approved.

Letter from Dr. Spencer with reference to certain fees for minor operations. Received.

Letter from Dr. Ercole, of Grenfell, with reference to a meeting of the medical men at Cowra, Young and Grenfell. Received.

Resolved—That the resolution submitted by Dr. Todd on the question of altering the resolution of November, 1898, be placed on the business paper for the special meeting.

Victoria.

THE ordinary monthly meeting was held in the hall of the Medical Society on Wednesday, May 1st. The President, Professor Allen, was in the chair, and there were present 31 members and one visitor.

The HON. SECRETARY announced the election by the Council of the following new members:—Dr. A. W. Bowman, Women's Hospital; Dr. J. J. Kitchen, South Melbourne; and Dr. R. D. O'Leary, St. Vincent's Hospital.

The PRESIDENT announced that the Council had sent a congratulatory cablegram to Lord Lister on his 80th birthday.

The PRESIDENT also announced that the nomination of Dr. R. K. Stawell was the only one received for the position of representative of the Branch on the Council of the Association. The nomination was put to the meeting and carried unanimously.

As it was possible that Dr. Stawell may not be able to remain in England for the meeting of the Council in July, the Council had decided to ask Dr. C. J. Martin, the representative of the New South Wales Branch, to speak on behalf of this Branch. The Council of the Branch had also forwarded with a covering letter to the general secretary a series of suggestions with reference to the proposed charter and new constitution of the Association.

Dr. A. JEFFREYS WOOD showed two cases of congenital dislocation of the hip after reduction, with skiagrams taken before and after reduction, and read notes on the cases.

Dr. W. A. WOOD said that he had done seven cases. In three the result was perfect. They were all about the ages of 3 or 4. One case, of the age of 10 years, done at the Children's Hospital with the aid of one of Dr. Lorenz's assistants, was not a success. In another case, that of a child of 8 years, with double dislocation, one side slipped in after an hour's forcible work. The result was the reverse of good. The leg swelled enormously, and the child was in hospital for several months and caused great anxiety. He did not care to attempt cases requiring so much force. One could not expect good results in more than 40 per cent. of cases. One might get anterior reposition in severe cases, which even in itself is worth getting. The result depended entirely upon the anatomical condition of the acetabulum and of the neck and head of the femur. All attempts should be guided by the use of the X-rays.

Dr. A. J. WOOD, in reply, stated that American statistics showed that in 41 per cent. of these cases good anatomical repositions were attainable. Many other cases were merely anterior repositions. The first case reduced in Melbourne had been done by Dr. W. A. Wood in 1898.

Dr. F. ANDREW read notes on a case of glioma, chiefly affecting the left brachium pontis, and showed the specimen. The case was that of a boy aged 5 years. The history showed that some strabismus of the left eye was noticed after a fall. Later there was paralysis of the left arm and leg. The deep reflexes were active, those on the left side being exaggerated. A wrist-jerk was obtainable on the left side. There was a double Babinski. There was paralysis of the left exterior rectus and later of the right exterior rectus. The optics, discs and fundi were normal. The movements of the left arm were irregularly ataxic, and there was volitional jerking of the muscles of the upper arm on movement, but no rhythmical tremor as in the case shown by Dr. Maudsley last year. The fingers were held in the claw position. No history of syphilis or tuberculosis was to be obtained. The lesion was diagnosed as infranuclear, affecting both pyramids, and was therefore in the neighbourhood of the pons. Why in this case had there been no headache and no vomiting, and no optic neuritis? There was no nuclear involvement, which was said by Mott, Gowers and others to inhibit optic neuritis.

Dr. E. L. GAULT asked if any explanation had ever been given of the statement that involvement of the third nucleus causing nuclear ophthalmoplegia prevented the onset of optic neuritis?

Dr. MAUDSLEY considered the case one of great value. He had not seen a case with such volitional ataxia as opposed to rhythmical spontaneous tremor as Dr. Andrew had described.

Drs. W. A. WOOD and ROTTERA also discussed the case.

Dr. CRAWFORD H. MOLLISON showed an exceptionally interesting series of specimens of pathological anatomy, including the following:—Tumours of the pharynx (2), abscess of the neck with fatal hæmorrhage into the pharynx, malignant growths of the stomach (3), polypi of stomach, stomach from a case of lysol poisoning, carcinoma of cæcum, uterus after inversion, retained placenta causing fatal hæmorrhage, uterus from a case of criminal abortion, calculus in bladder, calculi from gall-bladder, preputial calculus, suppurating kidney, rupture of the liver, melanotic sarcoma of skin of arm, gunshot fracture of skull.

Queensland.

A MEETING of the Queensland Branch was held on Friday, May 3rd, at the Technical College, Brisbane; Dr. Love (President) in the chair and an attendance of 15 members.

The PRESIDENT exhibited an apparatus for estimating the amount of sugar in urine.

A discussion upon the "Preservation of the Perineum in Labour" was opened by Dr. J. CAMERON, of Ipswich, in which nearly every member present took part.

The PRESIDENT announced that the next meeting of the Branch would be held at the Brisbane Hospital.

South Australia.

THE monthly meeting for March was held at the University on March 28th, 1907. The President was in the chair, and there was a good attendance of members present.

In the absence of the Hon. Sec. the minutes were not read.

It was resolved that Dr. H. Swift be appointed a delegate to the forthcoming annual meeting of the Association in Exeter.

Papers were read on cases of "Duodenal Ulcers" (see previous issue of *A.M.G.*) by Drs. Todd, Marten and Cudmore.

A long discussion ensued on these papers, and the authors replied.

Other papers were held over until next month.

The usual monthly meeting of the Branch was held on April 25th, 1907, at the University. The President (Dr. E. W. Morris) occupied the chair, and 36 members and one visitor attended.

Dr. W. A. GILES showed a patient on whom he had operated for epilepsy following traumatism.

The minutes of the previous meetings were read and confirmed.

Papers were read on special cases of "Appendicitis" by Drs. Anstey Giles, Jay, and Marten. (See pp. 219, 222, and 225.)

The discussion on these papers was initiated by the President, and many other speakers followed. Finally the remainder of the discussion was adjourned until the next meeting.

West Australia.

THE bi-monthly meeting of above Branch was held at the Perth Hospital on March 20th. Present: Dr.

Minutes of previous meeting were read and confirmed.

Cases.—Dr. Martin showed—(1) A case of partial symblepharon of lower lid, resulting from an accident with caustic soda three years ago; (2) traumatic cataract, followed 18 months after by two attacks of acute glaucoma. Iridectomy and removal of lens had been followed by § vision. (3) A case of rupture of cornea by blow with a piece of steel, with injury to iris and lens.

New Members.—Seven gentlemen were nominated for election at next meeting and three transferred from Sydney and S.A. Branches owing to change of residence to West Australia.

Paper and Discussion.—Dr. J. K. Couch read a paper on "Some Experiences in Intubation and Tracheotomy."

Dr. TRETHOWAN agreed with many of Dr. Couch's remarks, especially with the suggestion of a double string being left attached to the tube. He emphasised the need of deliberateness in doing tracheotomy, and spoke of the lessened need of either operation since the introduction of the antitoxin treatment. Dr. OFFICER, while generally agreeing with Dr. Couch, thought that there were great advantages in the use of chloroform during the operation. He was doubtful of the propriety of doing intubation in private practice owing to the greater difficulty for the nurse in those circumstances than in tracheotomy. The tube should not be left in for more than 36 hours without removal for cleaning. In doubtful cases he would prefer tracheotomy.

Dr. HUMPHREY thought that in cases in *extremis* tracheotomy was to be preferred owing to difficulties from the membrane blocking the intubation tube. He would say never do intubation in private practice, and would on no account give chloroform in doing the operation.

Dr. MOULE, as a general practitioner with some experience of tracheotomy and none of intubation, admitted the advantages of the latter, but on balancing the respective advantages would in all cases do tracheotomy.

Dr. TYMMS related a case where œdema of the glottis followed the use of iodide of potassium and disappeared after stopping the iodide. Later on the iodide was given again by a medical man unaware of the previous history, and within 36 hours tracheotomy had to be done owing to acute œdema of larynx.

Dr. CLELAND related a case of idic purpura and of œdema of legs following the use of potassium iodide.

Dr. COUCH replied.

Pathological Specimens.—Dr. TRETHOWAN showed an enlarged prostate from a man of 85 years, who is doing well. Dr. Trethowan showed for Dr. Saw one from a man aged 70; operation only three days before. Dr. Cleland showed (1) actinomycosis in jaws of bullock; (2) organised thrombus in auricle of bullock, nearly filling same; (3) cystic adenoma of breast of cow, cysts containing colloid substance. Drs. Tymms and Trethowan showed a specimen of cirrhosis of liver with enormous thickening of the capsule, from a girl of 18 years. Dr. Tymms showed an aneurism of the aorta which had caused death from suffocation owing to the pressure it had caused upon the trachea.

New Zealand.

THE annual meeting of the New Zealand Branch of the British Medical Association was opened on March 4th in the Town Hall, Dunedin.

Dr. C. MORTON ANDERSON (of Christchurch), the

read telegrams from the Hon. G. Fowlds (Minister of Public Health) and the Hon. Dr. Collins (chairman of the Council of the New Zealand Branch of the British Medical Association), regretting inability to attend the sittings of the congress. Dr. Anderson then introduced his successor in the presidential chair (Dr. Barnett, of Dunedin), who, he said, being so well known from Auckland to the Bluff, required no words of commendation.

Dr. BARNETT, who was greeted with loud applause on assuming the chair, said:—I thank you for having elected me as President of the New Zealand Branch of the British Medical Association. I am deeply sensible of the honour and dignity of the position, and of the distinguished manner in which the presidential duties have been carried out by my predecessors. I welcome to Dunedin the visitors from other districts, and trust they will find their stay in this city both pleasant and profitable. I regret the absence of the Hon. Dr. Collins, president for many years of the Council of the New Zealand Branch. I tender to him my hearty congratulations upon his appointment as a member of the Legislative Council of New Zealand. No member of the medical profession better merits the honour, and I believe he will prove to be one of the most useful men in the Upper House. Since our last annual meeting death has taken from our midst two dominant personalities whom this colony could ill afford to lose—the Right Hon. Richard John Seddon, whose zealous and self-sacrificing work for the welfare of the people included much that was of interest to the medical profession; and Dr. Duncan MacGregor, the late Inspector of Hospitals, in whom the highest scholastic attainments were combined in uncommon degree with shrewd practical knowledge of men and things. The medical profession laments the loss of these strong, brave men, and sincerely sympathises with their sorrowing relatives.

A number of valuable papers were read, Dr. Barnett's presidential address on the medical service of New Zealand being extremely able and comprehensive. Dr. Mason, Chief Health Officer, gave an admirable address on the health of school children, and Drs. Ogston and Ferguson dealt with the same subject. Dr. Truby King made an excellent speech in reply to Dr. Mason's address.

Wednesday, March 6th, was spent in recreation on the golf links, and in the evening the President, Dr. Barnett, and Mrs. Barnett, gave an "At Home" to the members of the Association in the Victoria Hall.

On Friday, March 8th, the congress was brought to a conclusion by the annual dinner at Fernhill Club. The majority of the visiting doctors accepted the invitation of the Government to visit Lake Wakatipu.

REPORTS OF OTHER SOCIETIES.

Western Suburbs Medical Association.

THE 17th annual meeting of the Western Suburbs Medical Association was held at "Carleon," Summer Hill, Sydney, on April 17th, 1907.

The President (Dr. Wade) occupied the chair, and there was a good attendance of members.

The report of the Hon. Secretary was adopted.

In the unavoidable absence of the Hon. Treasurer, the consideration of the balance-sheet was deferred to the next general meeting, but a credit balance of between £3 and £4 was announced.

The PRESIDENT delivered an address dealing with the events of the past year, especially with regard to the model lodge agreement.

The result of the ballot for office-bearers for the

President, Dr. Allan; Vice-presidents, Drs. Shorter and Lipscomb; Hon. Secretary, Dr. Lawes (re-elected); Assistant Hon. Secretary, Dr. Abbott (re-elected); Hon. Treasurer, Dr. Stephen; Council, Drs. Cosh, Hinder, Frizelle and Wade; Hon. Auditors, Drs. Pockley and Thomas.

The PRESIDENT introduced as the new President Dr. Allan, of Summer Hill, who then took the chair, after thanking members for electing him to the position.

The meeting then resolved itself into a smoke concert, the members being entertained by an excellent programme of music, singing and recitations, and refreshments being provided.

The Border Medical Association.

THE annual meeting of the Border Medical Association was held at Wangaratta on April 2nd. Present: Dr. Philpots, Dr. Harris (in the chair), Dr. Boyes, Dr. Henderson, Dr. Harkin, Dr. Bush and Dr. Lang.

Numerous apologies were received regretting absence.

The minutes of the previous meeting were read and confirmed, on the motion of Dr. Harkin, seconded by Dr. Boyes. The inward correspondence was received. In this was included a letter from the Secretary of the Victorian Branch of the B.M.A. The B.M.A. informed the Society that "to follow the rules of the B.M.A. this Society would be compelled to split into two divisions, a Victorian Branch and a N.S.W. Branch; but that the two divisions could hold their meetings together."

The PRESIDENT moved, and Dr. HARKIN seconded—"That the Secretary write to the Victorian Branch of the B.M.A. and ask him to state, in the event of the members of the two States falling in with this arrangement, what arrangements would the two district Branches make with the Border Medical Association with regard to the control of subscriptions and the supply of the medical journals?" It was agreed that the matter be brought up at the next quarterly meeting.

Dr. HARRIS moved and Dr. HARKIN seconded—"That in the meantime the Society continues to go on as before with regard to the management of its funds."

Election of Office-bearers:—President, Dr. Henderson (proposed by Dr. Harris, seconded by Dr. Harkin); Vice-president, Dr. Shuter (proposed by Dr. Harris, seconded by Dr. Bush); Treasurer, Dr. Andrews (proposed by Dr. Woods, seconded by Dr. Lang); Council, Dr. Harris (proposed by Dr. Johnston, seconded by Dr. Short), Dr. Harkin (proposed by Dr. McArdel, seconded by Dr. Paterson), Dr. Boyes (proposed by Dr. Schlank, seconded by Dr. Andrews); Hon. Secretary, Dr. Lang (proposed by Dr. Harris, seconded by Dr. Boyes).

The retiring President then read a most interesting paper upon "Immunity." He gave a long and deeply interesting *résumé* of the work done during the last few years by Metschnikoff and others in the same field. The paper was much enjoyed by members, and it led to much lively discussion.

The meeting then adjourned to dinner, to which they were kindly invited by the retiring President, and a most enjoyable evening was passed.

The venue of the next meeting was left in the hands of the President and Secretary.

N.S.W. MEDICAL BENEVOLENT FUND.—The Hon. Treasurer (Dr. Faithfull) begs to acknowledge receipt of the following subscriptions:—Dr. Wm. Chisholm, £1 1s; Dr. Walter Spencer, £2 2s; Dr. R. L. Faithfull, £1 1s; Dr. Jos. English, 10s 6d; Dr. A. Y. Fullerton, 10s 6d; Dr. W. H. Cope, £1 1s; Dr. A. MacGowan,

REVIEW OF CURRENT MEDICAL LITERATURE.

GYNÆCOLOGY AND OBSTETRICS.

Early Tubal Gestation: A Clinical Study based on a Personal Observation of 88 Cases.

Bell (*Journal of Obstetrics and Gynecology of the British Empire*, December, 1906). This paper is based on the author's experience of tubal gestation obtained at St. Thomas's Hospital, and consists mainly of a careful record of all such cases admitted to Adelaide ward from the beginning of 1899 to the end of 1905. Only cases of *early* tubal gestation—cases, that is, within the first half of pregnancy—and of pelvic hæmatocele are dealt with. The series consists of 88 cases, which are presented in tabular form, detailing symptoms of present illness, relation to last menstruation, physical signs, conditions found at operation, result and remarks on each individual case. The author considers the light this series throws on the difficult questions of diagnosis and treatment of early tubal gestation. The diagnosis of tubal gestation, followed by rupture or tubal abortion, is by no means easy. If the tabulated cases are examined it will be seen that in a very large number the illness had been in progress for one or two months before admission to hospital; and it is said, without offence to those who had seen them outside, that this long delay was often due to an error in diagnosis, the symptoms being regarded as due to "peritonitis" or "inflammation" and "abortion," and not to tubal gestation. Clearly it is of importance to know upon what symptoms and physical signs we can depend when required to diagnose this condition. The typical case is represented thus:—A woman between 20 and 40, after missing one or two menstrual periods, is *suddenly* seized with acute abdominal pain in the lower quadrant, either on the right or left side, and at the same time with faintness and vomiting. Concurrently with the pain, or shortly after, vaginal hæmorrhage begins and continues irregularly, the loss being less per diem than occurs at normal menstruation, the blood also differing from that of normal menstruation in colour. Clots may be passed, and sometimes a definite cast of the uterus. In many cases there is a little later a slight pyrexia and there may be difficulty in micturition. The picture will of course vary markedly with the accident that has happened. If rupture of the tube has occurred with great internal hæmorrhage, there will soon be signs of excessive bleeding; but in the great majority of cases, whether of rupture or abortion, the hæmorrhage is only sufficient to produce a pelvic hæmatocele. The characteristic physical signs of this condition are that the uterus is forwards and perhaps a little to one side, and that the cervix is softened and the body of the uterus slightly enlarged, and that behind it and probably more to one side than the other is an elastic swelling, depressing Douglas's pouch and the vaginal roof, and varying in consistence and tenderness. If this is a fair, though short, description of the typical symptoms and physical signs, it is clear that in this series some of them are found in a much larger proportion than others. The following figures are abstracted from the tabulated series presented. They refer to symptoms and not to physical signs. The first point considered is, in what proportion of cases can we look for help in the occurrence of a period of amenorrhœa preceding acute symptoms? The answer given

by this series may be stated thus:—First symptoms occurred during proper inter-menstrual period, 16 cases; when the period was due, or within a day or two, 17 cases; five weeks after last normal period, 12 cases; six weeks after last normal period, 12 cases; seven weeks after last normal period, 8 cases; two months or more after last normal period, 11 cases. That is to say, that in almost exactly 50 per cent. of the 88 cases there is a definite statement in the tabulated notes of a period of amenorrhœa extending to five weeks or upwards.

The next point dealt with is the abdominal pain, which is in most cases such a prominent feature. It occurred in some form or another in practically every case in the series. But its importance for diagnostic purposes depends on several factors—first, as to whether it is sudden and severe; secondly, as to whether it is associated with faintness or even absolute loss of consciousness; and thirdly, as to whether it is accompanied or followed by vomiting.

The figures may be presented thus:—Acute pain with faintness and vomiting, 21 cases; acute pain with faintness, 19 cases; acute pain with vomiting, 21 cases; acute pain alone, without faintness or vomiting, 11 cases; abdominal pain, indefinite in character, 15 cases.

As regards the hæmorrhagic discharge from the vagina, occurring irregularly at some period of the illness, and generally persisting up to admission to hospital, the tabulated notes show this was a nearly constant and a very important symptom. It occurred altogether in 73 out of the 88 cases. But while irregular bleeding may thus be taken as an almost constant symptom, no reliance or very little, so far as any rate as hospital cases are concerned, can be placed on the passage of a decidual case. In only 17 out of the 88 was there any clear suggestion of the passage of a decidua, and in some of these there was no certainty. While, therefore, as a piece of positive evidence the passage of a cast is important, negatively it is of no value.

The number of cases in the series in which pyrexia was proved to be present was also small, i.e., 23; but no doubt this does not give the right proportion of cases in which this symptom would be present if careful observations were taken from the onset of illness. Pyrexia, which is almost always slight, is in any case of very little value in differential diagnosis. The same may be said of difficulty in micturition which is noted in 20 cases in the series. The difficulty arises from the presence of the mass in the pelvis, and is of evidence rather of the existence of a mass than of its character.

It has often been stated that a previous long period of sterility commonly precedes a tubal gestation, and is of importance in helping towards a diagnosis. The table shows no reliance can be placed upon it. Tubal gestation may occur as a first pregnancy in a young woman, or soon after many normal gestations, or, of course, after a period of sterility; but the last named is the exception, not the rule.

As regards the physical signs, impressions only are recorded. Where there was great internal hæmorrhage it was usually shown by the general condition of the woman, and the source of the bleeding was indicated rather by the symptoms than the physical signs. It may be said in passing that the breasts occasionally afford positive evidence which is helpful, but that this evidence is so uncertain, and even misleading, if reliance is placed upon it, that great care must be taken not to allow negative evidence in the breasts to influence the

judgment, even to the smallest extent. Where a mass is present in the pelvis its characters are such as have been already indicated. Softening of the cervix, associated with enlargement of the body of the uterus, is often of great help in suggesting the nature of the swelling to be felt behind or on one side of the uterus. Sometimes the consistence of the mass conveys to an experienced examiner the impression that he is dealing with a tumour composed of blood in varying degrees of solidity; but it must be admitted that this is a refinement which can only be attempted by a few, and even by them in only a small percentage of cases. The more one sees of pelvic hæmatocele the more clear it becomes evident that the physical signs are not sufficiently distinctive to render diagnosis possible without a very careful consideration of the onset of the illness and its relation to menstruation and to irregular vaginal hæmorrhage. It is hardly possible to insist too strongly upon the symptom of irregular bleeding. When, as very often happens, the bleeding continues day by day, and is small in amount and dark in colour, it is so characteristic as to be almost pathognomonic. The author is inclined to put this first amongst the diagnostic symptoms, its great rival in importance being abdominal pain situated in one of the lower quadrants of the abdomen, sudden in onset and severe in type—so severe, indeed, as to be commonly associated with faintness, or vomiting, or both. These two symptoms, and, of course, their relation to the last normal period, far outweigh all others in significance and importance. The author, instead of saying "their relation to the last normal period," prefers to say "the relation of the first of these to the last period," as it is by no means uncommon for the hæmorrhage to begin, and even to last, several days, if not weeks, before any really severe attack of pain occurs; though undoubtedly a sudden attack of pain occurring after a short period of amenorrhœa, and followed by vaginal hæmorrhage, is the mode of onset which leads most directly to a correct diagnosis.

The remainder of the paper deals with the question of treatment, the surgical and not the expectant treatment being adopted almost exclusively, and statistics are added showing that both the mortality is less and the stay in hospital shorter by the surgical as compared with expectant treatment.

Simultaneous Intra- and Extra-uterine Pregnancy.

Fleurent (*Munch. Med. Wochenschrift.*, No. 37, 1906). The simultaneous occurrence of extra- and intra-uterine gestation in the same patient was formerly considered a rarity, 38 cases only having been recorded up to 1900. By 1906 this number was increased to 171.

Fleurent's patient was a primipara, æt. 23, whose previous pregnancy occurred four years previously. Her last menstrual period occurred at the end of May, 1905. On July 20th she was suddenly seized with severe pelvic pain, becoming unconscious; there was also a discharge of blood from the vagina. The patient refused to enter hospital. She improved for a few days, and was then again seized with severe pains, and there was a renewal of the discharge. In the right iliac fossa there was resistance to palpation, which extended across the middle line, where it reached two fingers' breadth above the symphysis pubis, and was gradually lost on the left. Bimanually the uterus was felt enlarged, softened, elevated and anteposed by a soft tumour, the size of a child's head, which filled the left half of the pelvis and bulged the pouch of Douglas. The uterus could not be distinctly separated from the soft surrounding mass. The diagnosis was made of left

tubal pregnancy leading to tubal abortion with the formation of a retro-uterine hæmatocele. This was confirmed at the operation on August 6th, when the hæmatocele sac was removed, and the uterus was found to be enlarged and soft. The tube presented no change in its uterine end, its abdominal portion being enlarged to the size of a hen's egg. v. Recklinghausen examined the extirpated sac and confirmed the diagnosis of tubal gestation. Three months later—at the end of October—the patient had a miscarriage, being delivered of a five months' male fœtus. An adherent placenta necessitated manual removal. The intra- and extra-uterine pregnancies were of the same age.

The Functions of the Ovaries after Total Extirpation of the Uterus, and their Relation to Post-operative Manifestations.

Holzbach (*Archiv. für Gynäkologie*, Band 80, heft 2). Judging from his own investigations and from the records of published cases, Holzbach finds that the ovaries retain their full power of ovulation even many years after total removal of the uterus. If, nevertheless, manifestations of disturbance of function occur in these patients, the author believes that the cause must not be looked for in the ovaries only. Doubtless there are extensive and delicate nerve relations between the individual organs of the female genital tract which may be responsible for the causation of such disturbances. The author concludes that surgeons should endeavour to be as conservative as possible in their methods of operating on cases in which removal of the uterus is indicated, especially in operation for myomata.

Dilatation of the Cervix by Bossi's Dilator.

Blacker (*Trans. Med. Soc.*, London, 1906, vol. 29). The author gives his own experience with the Bossi dilator and reviews the results obtained by others in over 500 cases recorded in the literature. He considers the dilator provides a means of dilating the cervix rapidly, and that it may be used before the cervical canal is obliterated as well as after dilatation has commenced. In cases where the cervix is still unobliterated there is considerable risk of tearing the tissue, but this danger is not so great as some of the opponents of the method maintain, provided the instrument is used on the lines laid down by Bossi. The tears which have occurred in many instances have been due to means adopted for the subsequent delivering of the child. The risk of lacerating the tissues exists even in cases where dilatation of the cervix has already commenced, and depends as much on the degree of softening of the tissues as on the amount of dilatation of the cervix which is present. As even in the most favourable conditions laceration of the cervix may occur, the dilator should be used only in the most urgent indications—that is to say, in cases where grave danger exists to the life of the mother or to that of the child, and where rapid emptying of the uterus is likely to lessen such danger. Happily, such cases are of very rare occurrence, and while, therefore, Bossi's method of rapid artificial delivery may be of use in a few rare cases, yet if it be used indiscriminately and without great care it is likely to cause serious injuries to the cervix and even to the lower uterine segment.

The Technique of the Induction of Premature Labour.

Planchu (*Lyon Medical*, 1907, vol. 108, No. 4). This paper contains a discussion of the relative ad-

vantages and disadvantages of the induction of labour by the bougie or by the dilating bag. The objections to bougies are the risk of accidental rupture of the membranes and of occasionally wounding the circular sinus of the placenta, but most of all the uncertainty of the result. Sometimes in primipara the repeated introduction of bougies may not bring on labour for from five to twelve days. The opportune moment for induction may in this way be missed, and the repeated manipulation greatly adds to the risk of infection. Of the dilating bags usually employed, that of Champetier de Ribes is the one most commonly used. The large size usually employed has many objections; unless the bag of membranes is ruptured it unduly distends the lower uterine segment, it tends to displace the presenting part, and so on. The faults are got rid of by using a much smaller bag, which acts not so much as a dilator of the cervix as simply to excite labour. Such a bag as used by the author is, when fully distended, about the size of a small orange and contains about 180 c.c. The small size of the bag prevents displacement of the presenting part or tension in the lower uterine segment; the bag can be easily introduced without rupturing the membrane, and quickly provokes labour pains—in about two hours on an average. In the early stages it acts as a dilator, and by the time it is expelled into the vagina the cervix is about the size of a five-franc piece and the bag of membranes can continue the dilatation. The details of technique recommended are as follows:—The bag is disinfected by scrubbing with soap and warm water, and is then washed over with alcohol and immersed for a quarter of an hour in a 1 in 1000 sublimate solution. The cervix is seized with a vulsella and drawn down towards the vulva and the index finger inserted into the canal and the lower 2 or 3 c.m. of the membranes separated; the space thus made is gently douched out with an antiseptic solution. The bag, rolled up cigar-wise, is then introduced with the fingers and not with forceps. Forceps will only rarely be required, as in the case of primipara with a very narrow cervical canal. The bag is then filled with 150 to 180 c.c. of boiled water.

OPHTHALMOLOGY.

Operations for Secondary Capsular Cataract.

In *Knapp's Archives* for March-May, 1906, Edward Jackson, of Denver, and Major Smith, of Jullundur, India, have articles on this subject. They both refer to the hazardous nature of these operations and the reluctance of surgeons to perform them. Jackson ventures the opinion that there are ten failures of the needling operation to one failure in extraction. Jackson's rules for procedure are:—(1) To see the operation there must be strong, oblique illumination of the eye, in a dark room, and the surgeon must possess powerful accommodation or use spectacles with strong convex lenses or the binocular magnifier. If the operator were strongly myopic there would be no need for convex lenses or magnifier. (2) The knife needle must be perfectly sharp, and its shank must exactly fit the external opening to prevent escape of vitreous. (3) The knife needle must be entered through the vascular tissue of the corneal limbus and not through the clear cornea. Jackson believes that in time it will be ranked as malpractice to enter the knife through the cornea. The entrance through the limbus gives two immense advantages—practical immunity from infection by going through a vascular membrane, and a longer leverage whereby a longer sweep of the blade of the knife can be made. (4) The making of a V or T-shaped

or crucial incision in the membrane. A single straight incision will not do.

Smith, after referring with sarcastic bitterness to the non-acceptance by the profession of his method of lens extraction in the capsule, in the "time-will-come" strain, describes his method of dealing with a secondary capsule, which is radically different from Jackson's. He strongly deprecates the leaving of a secondary capsule, even if it be sufficiently clear in a portion of its extent to allow of useful vision, inasmuch as it acts as a foreign body, "and nature behaves to it as she does to such foreign bodies." His observation is that a patient with an after cataract, if asked "if he feels that he has got an eye," will almost invariably tell you that he does, and that if he gets a mild ophthalmia in it, or the slightest injury, he is very likely to have serious intra-ocular inflammation of almost any variety. Smith's procedure, of which he is a firmly-convinced advocate, is: Dilate the pupil, cocaineise the eye, make an iridectomy sized wound at the corneo-scleral junction above, do an iridectomy, if it has not already been done, reach in an iris forceps, a little stouter than ordinary, somewhat beyond the centre of the pupil, and allow the blades to open wide, drive one point through the after cataract, close the forceps tight, and draw out the offending body. There may be an escape of a bead of vitreous, which is of no importance. Escape of vitreous should not occur if an assistant keeps the upper lid lifted well forward with a blunt hook and keeps the lower lid well drawn down by placing his thumb on the face below it. The results, he states, are eminently satisfactory.

Eye Strain and Crime.

G. M. Case, of Elmira, N.Y., in the *Ophthalmic Record* for November, 1906. An American oculist, not contented with the doctrine of some of his countrymen that epilepsy, constipation, appendicitis, diabetes, etc., are frequently caused by eye-strain, seeks to show by statistics and reasoning that this is a frequent factor in causing crime. The paper is a lengthy one, and it is neither possible nor desirable to follow the windings of his reasonings or to swallow his inferences. Briefly, his argument is something like this. Children suffering from eye-strain are apt to be irritable and irascible. This may be carried towards producing "mental unbalances," insanities, and criminal tendencies, alcoholic and drug habits. Truancy, according to him, can often be traced to eye-strain, which, when frequently repeated, "precipitates the individual into the life of a vagabond and criminal." A nervous system constantly harassed by evil effects of eye-strain needs to be quieted or numbed from this constant irritation, and it is "apparent that the connection between the two, drug or alcohol habit and eye-strain, is more than merely accidental not only among the class that go to make up the criminal but in all walks of life." The statistics culled from reformatories and prisons are not very convincing, but they go to show that where eye-strain has been corrected by means of glasses there has been noticeable improvement in the prisoners' demeanour, conduct, progress, school or work. Case thinks that an oculist should visit every prison, and all cases of eye-strain found in prisoners on admission should be corrected at once. "This starts the prisoner right and does away with much of his bad behaviour. A nervous system harassed by a constant eye-strain is ready to give way under the slightest provocation," and so on. He quotes several gaol doctors as expressing the opinion that correction of the strain resulted in improved behaviour. One Philistine, however, is equally em-

phatic in contradiction. He says: "After being an oculist to an institution for years it is my opinion that criminals have good sight. 'Eye-strain and its relation to crime' does not hold. There is nothing in it. My own personal observation leads me to think that criminals see better than other people. They have to see well to pick pockets, crack safes, etc." Perhaps some of our gaol doctors and medical officers to hospitals for the insane might like to investigate the question for themselves. The results would be interesting.

Prevention of Infection of the Eye by the Pre-operative Administration of Potassium Iodide.

Dor (Lyons) *L'Ophthalmologie Provinciale*, December, 1906; *Ophthalmic Review*, March, 1907). Following up his laboratory experiments on animals regarding the value of potassium iodide in preventing infections of the eye, an account of which was communicated to the Ophthalmological Congress of 1901, Dor further endorses the prophylactic value of this drug in post-operative eye infections in man. For the last five years he has given iodide of potassium previous to operating in doses of 15 grains thrice daily for three days before operation, and within this period he has operated on numerous complicated cases without the slightest accident. He relates the case of a double cataract in a man aged 70, who had in addition purulent cystitis, prostatitis and perineal fistula. The right eye had been lost through operation. Dor gave his usual prophylactic and operated, with the patient just as he was on the bed, in a miserable garret, lighted only by means of a bull's-eye lamp and in an atmosphere impregnated with the odour of decomposing urine. The result was good.

NEUROLOGY.

On the Presence of a Syphilitic Anti-body in the Cerebro-spinal Fluid of Cases of General Paralysis.

Before the Society for Psychiatry and Nervous Diseases in Berlin, Plant (*Neurol. Centralbl.*, No. 23, 1906) read a paper and gave a demonstration on the above subject. The paper was the outcome of some work done by the reader and Wauermann at Koch's Institute in Berlin. The result of the work was that they were able to demonstrate in the great majority of the investigated cases of general paralysis of the insane the presence of an anti-syphilitic body in the cerebro-spinal fluid and in the blood serum. They investigated 48 cases—6 were negative, 4 gave doubtful reactions, and 38 were positive, i.e., in about 80 per cent. of the cases the anti-body was present. As a control the cerebro-spinal fluid of 23 non-syphilitic persons was investigated. These all proved to be negative. Of the positive cases, some had acquired syphilis 20 years before and others only five or six years. Some of the cases had been treated, others had not. Four cases of brain syphilis (two cases were doubtful) were investigated, but none of them showed the presence of an anti-body in any marked degree. An old case of syphilis gave a negative result.

On the Tissue Changes in the Brain of Syphilitic Infants.

Ranke (*Neurol. Centralbl.*, November 3rd, 1907) writes a very interesting paper on this subject. He quotes Jullien's statistics, who found out of 162 living children from 43 syphilitic families that 50 per cent. had "meningitic convulsional" symptoms, and

Ziehen's statistics, who found that 17 per cent. of idiotic or weak-minded children were very probably so through syphilis. Ranke points out that in only a very few cases of autopsies on these children have any syphilitic lesions been found in the nervous system—a fact due chiefly to ignorance on the part of the observers as to what ought to be looked for. He reviews the changes described by various investigators in the other organs of the body. Hecker showed that in congenital as in the acquired form it was the connective tissues which showed the chief changes. He groups the changes as follows:—(1) The characteristic vascular changes; (2) a diffuse small cell infiltration; (3) a circumscribed round cell infiltration—the milary syphiloma; (4) circumscribed and diffused overgrowth of connective tissue. Hutinel, Hudelo and Harvonen have investigated the developmental disturbances and developmental defects in such cases. Ranke investigated 50 brains from fetuses of the third month in children of a few months old. Eleven of these brains were certainly those of syphilitic children or fetuses, and in these macroscopic changes were slight. In four cases gross hæmorrhages into the pia and brain substance were present, but these can often be found in other children after difficult labour. In the syphilitic cases he found the capillary walls in a very retrograde condition of development. He illustrates this and many other points. He found in the arteries an endothelial overgrowth and vacuolation. He noted the throwing off of large endothelial cells, which took on a macrophage action. The adventitia became infiltrated with leucocytes and showed the presence of numerous plasma cells, and in some cases numerous mast cells. This process of infiltration only sets in after the sixth month of foetal life. Besides this leucocytic infiltration, the adventitial tissue increases in amount and extent. At the same time and to the same extent the glia shows marked signs of increase. This glial increase occurs also in isolated patches, in which the nerve cells show marked degeneration, and the vessels passing through which are at times occluded. The pia showed thickening. In its meshes were constantly seen in syphilitic full-time fetuses large characteristic round cells. These cells are present in the pia in normal cases up to the seventh foetal month, and then disappear, but they remain abundant in syphilitic cases. Ranke examined the question of the presence of the spirochæta pallida. It has been found in almost all organs of congenital syphilitic cases, especially in those resembling the tertiary gumma of acquired cases; but up till now no success had attended the search for it in the brain of such cases. By Levaditi's silver impregnation method Ranke has succeeded in showing the presence of the spirochæta in enormous quantities.

The Value of the Physiological Principle in the Study of Neurology.

Patnam (*Ref. Neurol. Central.*, 1906, Nov. 24) emphasises, in connection especially with neurology, a fact which is becoming more and more evident in the whole field of medicine, viz., that physicians can no longer afford to neglect the teachings of physiology. The day is past when it was safe for the medical man to work throughout his life as if no advances had been made since the day when he last turned his back upon the physiological class-room. "We physicians have the duty," he says, "to put all our strength into acquiring a better understanding of those means whereby Nature may be helped in her work of repair." It becomes increasingly necessary that the physician should turn more and more to physiological problems and physiological methods.

MEDICAL MISCELLANY.

THE difficulties of managing superstitious people are many. The Hindu population object to killing rats. Mr. Ram Narayan, a native banker, proposes (the *Journal of Tropical Medicine* states) to provide a "ratuksha," or sort of pen, in which captured rats may be confined as pensioners for the term of their natural lives, the sexes to be kept apart. The suggestion has been received gratefully by Major Buchanan, I.M.S., who is in charge of plague operations in India.

The Berlin correspondent of the *Tribune* writes of the recent severe epidemic of smallpox in the town and district of Metz. The narrow streets and quaint old houses of the former French city were no doubt in part responsible for the spread of the disease, but it appears that of all the deaths not one took place in the case of a vaccinated person.

At the annual meeting of the St. Cross Hospital, Rugby, England, the following rule was unanimously adopted:—"No person shall attend as an outdoor patient (unless under exceptional circumstances) whose average weekly income exceeds the following scale: One person in the family, 18s per week; two persons in family, 21s per week; three persons in family, 24s per week; and so on, 3s for each additional member of the family." It was pointed out that the alteration would not curtail but extend the benefits of the hospital.

Seven German universities admit women on the same terms as men, and at present they have a total register of 116 women in the medical departments. This is an increase of 56 over the preceding year.

Cerebro-spinal meningitis shows no signs of abating in certain parts of Great Britain. Twelve cases and six deaths have been reported in England; in Scotland, 313 cases, 185 deaths; in Ireland, 122 cases, 66 deaths. The British Local Government Board has issued circulars warning all local sanitary authorities to be on the alert to detect the presence of the disease, or to satisfy themselves as to its absence.

The Kaiserin Friedrich-Haus at Berlin, which is the centre for official post-graduate instruction throughout the German Empire, has had installed an information bureau for the convenience of local and visiting physicians. The visiting physician can there learn whatever he needs in order to obtain the greatest professional benefit from his stay in Berlin. The official title of the information bureau is the *Auskunftei*, Kaiserin Friedrich-Haus, Luxenplatz 2-4 Berlin iv. W. 6, Germany. No charge is made for the services.

At a recent meeting of the Baltimore County Medical Association, U.S.A., it was suggested that antitoxins would be more effective if they were prepared in the human body, because only a few animals are susceptible to the diseases of man. It was mooted that such antitoxin could readily be produced by using criminals for the production of serums. A law could be enacted making the punishment for certain crimes optional with the convict—imprisonment on the one hand, inoculation with certain disease germs on the other.

The dearth of men for subordinate medical appointments in South Africa is exemplified by the fact that

there was not a single application for the position of junior resident at the Kimberley Hospital, a post carrying a salary of £300, board and quarters, and abundant opportunity for clinical work of the most valuable character. The same difficulty is experienced as regards assistantships, and to some extent "locum tenencies." Poverty-stricken as the profession is in South Africa, the young man would rather fight his *confrères* for a share of income than take a subordinate position.

The bacillus *pestis* has been found alive in the bodies of flies 48 hours after they had been feeding on infected material. Cholera bacilli and typhoid bacilli, bacilli of tuberculosis, streptococci and staphylococci have been known to pass uninjured through the bodies of flies ready to infect butter, bread, milk or meat, as the insects deposit their fly-specks in crawling over the food in kitchen or on the dining-room table.

The petition in favour of the admission of women to the examinations of the Royal College of Surgeons, England, contained less than 3000 signatures. Had members of the College taken serious consideration of the question, double that number of members would have petitioned against the admission of women to membership.

Mr. John Burns, President of the Local Government Board, England, has introduced a bill which if it passes into law will enable the Board to make regulations with regard to the importation, preparation, storage and distribution of foods.

The greatest response ever made to the appeal of a newspaper is that obtained by the *Petit Parisien*, which asked its readers who were the greatest Frenchmen of the nineteenth century. Fifteen million votes were received. Pasteur came in an easy first, with a million votes more than Victor Hugo.

Der Deutsche recently contained an article by a clergyman describing the way in which he could follow the trail of certain quacks through many sick-rooms. In one instance leg ulcers were treated with a swallow's nest mixed with pigeon manure and oil, applied on a piece of uncleansed wool taken from between the legs of a living sheep.

The medical officer of health to the Tunbridge Wells Corporation reports for the past year the lowest death rate on record, viz., 11.35 per 1000 of inhabitants. The Town Council makes a novel recommendation to householders to ensure even healthier surroundings. It urges that, instead of keeping fowls and domestic animals in small gardens, sweet-smelling flowers—such as mignonette, lavender and mint—should be planted, as these produce ozone in large quantities.

Andrew Carnegie has announced that he will present to the University of Paris a fund sufficient to yield \$2500 annually, to be used to pay for scholarships for research in the natural philosophy laboratory, which was recently created for the late Professor Curie. The scholarships will be named Bourses des Curie, and will be open to students of all nationalities. Mme. Curie was recently appointed professor of science at the University of Paris, the chair previously held by her husband, and commenced her lectures at the Sorbonne on November 5th.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

University College—The Bacteria of Milk—Murder and Suicide—The Army Medical Service—Health of London—The Japanese Medical Society during the Recent War.

THE annual report of the Council of University College, which was issued in January, shows that the number of students for 1905-6 was 1396. Of these 242 belong to the faculty of medicine, 1020 to the faculties of arts and laws and of science, and 134 were post-graduate and research students. There were 468 internal students of the University of London, that is, students taking full courses for degrees at the University of London. There were, besides, about 800 persons attending "public" and "special" courses. The financial statements show that the income exceeded the expenditure by £126, and that the Treasury grant amounted to £10,000. Ninety-seven students graduated at the University of London, of whom 13 obtained higher degrees. The most noteworthy achievements in the way of publications by professors have been attained in the department of Egyptology, under the direction of Professor Flinders Petrie; in the department of chemistry, under Professor Sir William Ramsay and Professor Norman Collie; and in the department of applied mathematics, under Professor Karl Pearson. The report summarises the steps that have been taken for the union of the college and the University of London. On January 1st of the present year the college ceased to be a school of the University, and became incorporated with it. Important additions have been made during the past year to the departments of physics and chemistry, and a plan has been worked out for the rearrangement of many of the college departments. This will be possible when the new buildings for the school of advanced medical studies, now in course of erection by the generosity of Sir Donald Currie, and when the new buildings of University College School at Hampstead are completed. The new medical school buildings will be finished during the next few months, and the boys' school buildings in time for the school to begin work there in September next.

Professor Macfadyen delivered an interesting popular lecture on January 26th at the Polytechnic on the bacteriology of milk. He pointed out that milk, as excreted by the cow, was an excellent food, containing every necessary element for subsistence, and no bacteria. But the moment milking began the milk commenced to be populated. Some bacteria came from the cow's hair, others from its skin, others from the milk vessels, the milker's hands and their clothes. Any difference that might be noticed in the taste, smell or colour of milk was simply due to the various species of bacteria which colonised it. Warmth, for instance, favoured the growth of lactic acid bacteria, but these apparently belong to the virtuous section, as they are useful in butter making. The varying flavours in cheese also were due to different species of bacteria, under particular conditions of temperature. Consequently the pride and glory of Cheshire, of Stilton, and of other great cheese-making places was really based on particular bacteria. Professor Macfadyen showed that while market milk might easily contain from 100,000,000 to 150,000,000 bacteria, good and bad, to the cubic centimetre, 90 per cent. could be eliminated by heating the milk to 140 to 180 degrees and then cooling it.

From the perusal of a recent blue-book issued by the Home Office on the crime of the country for the year 1905, it would appear that while murder is decreasing, suicide is becoming more and more prevalent. Sir John Macdonell, Master of the Supreme Court, who writes the introduction to the statistics, says that, speaking generally, suicide is the offence of men. Three men commit suicide for every woman who does likewise. In 1905, there were 3515 cases of suicide in England and Wales, being an increase of 188 on the preceding year. The annual average of the five years 1896-1900 was 2796; for the next five years 1901-1905, the average rose to 3333, so that the record for 1905 exceeds that average by 182. Murders are diminishing, both in proportion to the growing population and relatively. This applies to the country as a whole. The subject is specially examined by Sir John Macdonell in regard to London, with the same result. He supplies a table covering 13 years, from 1893 onwards, showing the number of murders and attempts to murder known to the police, and the proportion per 100,000 of the population:—

Year.	No.	Proportion.
1893	37	0.63
1897	31	0.49
1902	40	0.59
1903	29	0.42
1905	29	0.41

Murder, Sir John points out, is the crime of men in the majority of cases. Of 552 persons sentenced to death since 1885 in England and Wales, 488 were men. The great majority of persons murdered are women, and the murder of females tends to increase, a very large proportion of the victims being wives. In the 20 years' total of death sentences just quoted, 124, or nearly one-fourth, were on husbands guilty of wife murder; 76 of the death sentences were for the murder of mistresses, and in 39 cases the victims were sweethearts. It is when in the period of greatest physical vigour, from 21 to 40 years of age, that people commit murder. "An incident in miserable lives" resulting from disputes, quarrels and angry words—this is Sir John Macdonell's diagnosis of the majority of murders; they are not generally the work of the so-called criminal classes.

The Secretary of State for War has approved of the amalgamation of the Army Medical Advisory Board and the Sanitary Committee. The reconstituted Army Medical Service Advisory Board will be composed of the following members:—Chairman, the Director-General, Army Medical Service; Vice-Chairman, the Deputy Director-General, Army Medical Service; Bt. Colonel D. Bruce, C.B., F.R.S., M.B., R.A.M. Corps (as expert in tropical diseases); Colonel G. K. Scott Moncrieff, C.I.E., Royal Engineers, Assistant Director of Fortifications and Works; Lieut.-Colonel C. H. Melville, M.B., R.A.M. Corps (as expert in sanitation). Civilian members: Sir F. Treves, Bart., G.C.V.O., C.B., F.R.C.S., LL.D., Surgeon Extraordinary to the King, Consulting Surgeon to the London Hospital; Dr. J. Rose Bradford, F.R.S., F.R.C.P., London, Professor of Medicine, University College, London, Physician to University College Hospital; Dr. Louis Parkes, Consulting Sanitary Adviser to H.M. Office of Works, Examiner in Public Health, Universities of London and Birmingham, Lecturer in Public Health, St. George's Hospital; Dr. M. S. Pembrey, M.A. (Oxon.), Lecturer in Physiology, Guy's Hospital, Examiner in Physiology, University of Oxford; Sir Charles A. Cameron, C.B., M.D., F.R.C.S. (for sanitation in Ireland), Professor of Chemistry and Hygiene, Royal College of Surgeons,

Ireland. Representative of India Office: Surgeon-General A. M. Branfoot, C.I.E., M.B. (retired, Indian Medical Service). Secretary, Lieut.-Colonel C. H. Melville, M.B., R.A.M. Corps.

In submitting to the London County Council the report of the Medical Officer of Health for the year 1905, the Public Health Committee refer with satisfaction to the continued fall in the death rate, which was the lowest recorded for London since the Registration Act came into force. Since 1891, when, owing to the new Public Health Act, the County Council was brought more directly into relation with the sanitary authority, the death rate has fallen from 21.0 to 15.1 per 1000, or nearly 30 per cent. This represents a gain to the community of 19,584 lives. There were only 74 notified cases of smallpox during 1905, the disease being at a comparatively low ebb after the wave of prevalence in 1901-02. The behaviour of measles is being watched with special interest, inasmuch as the order of the Council applying certain provisions of the Public Health (London) Act to measles has now been in force for some years, and, as the result of the Council's action, more endeavours have been made to prevent the spread of this malady. The practicability of taking further steps for limiting the mortality from phthisis is engaging attention, and the committee note that in 19 out of the 29 sanitary districts voluntary notification of this disease is in force. The Medical Officer in his report lays stress on the fact that the absence of adequate administration for the purpose of meat inspection affords opportunity for the importation into London of meat which would not be allowed to be consumed in any Continental city where meat is brought under inspection. This is a matter to which the committee have devoted great attention, and the hope is expressed that the desired authority may be conferred by the passing of the Public Health (Regulations as to Food) Bill, introduced into Parliament in the session of 1906 by the President of the Local Government Board.

In an issue of the *Lancet*, published at the beginning of January, a review of the results achieved by the Japanese Army Medical Corps in the recent Russo-Japanese war is given by Professor Koike, Staff Surgeon-General of the Japanese army. The whole number of wounded was 220,812, of whom 47,387 fell on the field of battle. In this total are included 19 army medical officers killed and 104 wounded, being a total of 123, or 2.7 per cent. of the total number of 4517 military medical officers who took part in the campaign. Of the rank and file of the Army Medical Corps—excluding the temporarily employed stretcher-bearers, etc.—there fell or were wounded 450, which makes, all told, 573 casualties, or 0.25 per cent. of the total number wounded. An exceptionally large strength of medical officers and men was required to deal with the enormous numbers of Japanese and Russian sick and wounded, the total of whom amounted to 632,688. The medical officers numbered 4517, and the army apothecaries 639, while 33,697 non-commissioned officers and men were also available, making a total army medical strength of 38,753. To these must be added the help rendered by 44,465 members of the Japanese Red Cross Association and other voluntary workers. No single instance of deficiency in surgical and medical material occurred. The transport of the sick was carried on by means of army ambulance waggons, railway carriages, and Chinese peasant carts, which were hurried along by the side of the railway lines back to the field hospitals. Thence the sick were conveyed further to the rear by train or by boats.

From the landing stages in Manchuria and Korea the wounded and sick reached their native place in special steamers. Besides these steamers, 20 well-found hospital ships and many other vessels were available for transport. After reaching Japan the sick were distributed to the respective reserve hospitals, 320,000 sick and wounded being thus dealt with in the hospitals at home. Dr. Koike shows that, owing to the progress and improvement in the medical services in war time, the deaths from sickness formed only about a third of those from wounds, and he draws the conclusion that, up to the present time, the Army Medical Service of no other country has shown such brilliant results.

FEE FOR NOTIFICATION OF PULMONARY TUBERCULOSIS.

(To the Editor of the Australasian Medical Gazette.)

Sir,—I do not remember seeing in the *GAZETTE* any protest against the absurd fee given by the City Council to medical men notifying cases of pulmonary consumption. Why should the recognised fee have been departed from? The fee, I believe, is 2s 6d for a case seen in private practice, and 1s (deducting postage, etc.—about 10½d) for a lodge case.

Why the distinction? Is it any less difficult to diagnose and notify a lodge case? Is pulmonary tuberculosis in a lodge patient less important or less dangerous to the public?

If the fees must stand, they should be reversed. One medical man I know, on principle, never diagnoses the disease in a lodge patient, but if he suspects the possibility recommends the patient to a consultant, who gathers in a guinea or two and notifies the case. This sensible practice, however, cannot always be carried out, and I suggest the Council of the B.M.A. takes steps to have the fees altered.—I am, etc.,

LODGE PRACTITIONER.

Sydney, April 25th, 1907.

TROPICAL DISEASES.

(To the Editor of the Australasian Medical Gazette.)

Sir,—In various guises I have recently encountered the assumption that the pathology of tropical diseases is not taught in the Universities of Australia, and even in the *GAZETTE* I find this misconception appearing. On page 177 of last issue it is noted that Dr. Angas Johnson, of Adelaide, has completed a successful post-graduate course, and the comment is made that it is time the Australian Universities included in their curriculum instruction in tropical medicine, the implication being that they have not already done so.

In our own University considerable attention is devoted in lectures, in demonstrations, and in practical work to the study of the more important forms of tropical disease, some knowledge of which is so obviously part of the necessary equipment of the medical practitioner that they are taken as an integral part of the ordinary course of instruction. Moreover, questions on plague and on dysentery, on malaria and on trypanosomiasis have been included in examination papers for the ordinary degree, and these and other tropical parasites have been presented for identification in the practical examinations for that degree. I will venture to assert that no graduate in Medicine of this University is turned out without having had the chance of acquiring a good working knowledge of the more common forms

of tropical disease; and what I say of this University probably holds good for other Universities in Australia.

Organised research in the diseases of tropical Australia is of course quite another matter, and here there is a distinct opening for good and useful work to be done. I am glad to say that a scheme for the encouragement of such research is likely to be adopted and carried out in conjunction with the Universities of Australia.—I am, etc., D. A. WELSH.

University of Sydney, April 26th, 1907.

RUBBER GLOVES IN MIDWIFERY.

(To the Editor of the Australasian Medical Gazette.)

SIR,—I wish to write you in regard to rubber gloves in midwifery. Howard Kelly says in his text book that the man who puts his hands into an abdomen without rubber gloves is guilty of negligence. Might not the same idea of strict asepsis be applied to midwifery. Two years ago I was attending a case of poisoned hand, although I did not think I touched the hand, but constantly used forceps for the dressing. One night I attended two cases of confinement: one made a normal recovery, the other developed septicaemia and died. Here was food for reflection. Conscientiously a doctor must blame himself if he wishes to improve his methods: it is futile blaming anyone else. Further, on engagement for a case of midwifery, let him tell the future mother not to allow the nurse to examine at the time, so that then he knows what he is doing. I spoke to several men in Sydney about these cases. Several of them said, "Oh, everyone has had cases some time or other." One said, "Your methods are faulty." That was the secret. What is required is asepsis. I often carried Lockwood's spirit solution, but found his method unsatisfactory in a private house. There are certain cases septic in themselves, as gonorrhoea. The medical man may dismiss these cases and say that he is the cause of septic cases himself. For two years I have used rubber gloves. I approach a midwifery case without fear. The gloves I carry in 1-20 carbolic acid in a jar, usually one yard B. & B. gauze, jar with a spring cap. The gloves are removed with sterilised forceps, and boiled for five minutes. Pour boiling water off and pour on cold boiled. Then sterilise the hands in the ordinary way, and put on the gloves. After each use or examination boil the gloves again. By this method, combined with careful sterilisation of the parts, a man may be sure that he is not carrying death and destruction to his helpless fellow beings. I believe if this method were universal the heavy mortality amongst mothers and infants would be greatly reduced, and further, that the condition after confinement would be better. Less subinvolution, endometritis, displacements would result. I advise my readers to carefully consider the bad cases they have had, and whether they could not have been prevented by the means I mention.—I am, etc.,

Casino, April 25th, 1907: A. H. RUTHERFORD.

Corrigenda

WE have been requested to publish the following correction to the Transactions of the Australasian Medical Congress which was held at Adelaide, 1905:—Page 143.—Paper on Operative Treatment of Senile Disease of Prostate: For "Thos. Fiaschi, M.D., M.Ch., Italy," read "Alexander MacCormick, M.D., Edin., M.R.C.S., etc." The coloured diagram misplaced by error after page 136 belongs to, and should follow, Dr. MacCormick's paper.

AUSTRALIAN UNIVERSITIES.

Sydney.—At the monthly meeting of the Senate of the University held on May 6th a report was received from Convocation stating that Mr. F. Leverrier had been elected a Fellow of the Senate. On the recommendation of the Dean of the Faculty of Medicine it was resolved that Dr. Critchley Hinder be requested to carry out temporarily the duties of the lectureship in clinical surgery, recently performed by Dr. Clubbe. A letter was received from Mr. S. H. Barraclough, reporting a donation to the University from the Westinghouse Brake Company of an example of their most recent type of compressor plant. It was resolved that the thanks of the Senate be transmitted to the Westinghouse Brake Company for this valuable donation. Letters were received from the Bishop of North Queensland and the president of the Townsville Hospital conveying an outline of a scheme for the encouragement of research in the diseases of tropical Australia, the Townsville Hospital committee having undertaken to provide an isolated building in the grounds of the hospital as an institute for the work of investigation, the oversight and direction of the institute to be in the hands of the medical faculties of the Universities of Adelaide, Melbourne, and Sydney. The following resolution was adopted, on the motion of Professor Anderson Stuart:—"That the Senate approves generally of the establishment of a research fellowship for the scientific study of the diseases of tropical Australia, and agrees to provide the Fellow with the necessary laboratory accommodation within the Medical School, and under the direction of the Professor of Pathology, in order that the Research Fellow may have the advantage of the equipment of the pathological laboratory, in addition to that provided at Townsville."

Melbourne.—Mr. Justice Cussen and Dr. John Williams, being the only candidates nominated, have been elected members of the University Council for a period of five years. Dr. T. P. McInerney, being the only candidate nominated for the position, has been elected warden of the Senate of the University for the year beginning June 1st. The Faculty of Medicine has presented to the University Council a report adverse to the institution of a diploma of massage. The feeling of faculty was that massage covered too small a field of the work to form a subject for a diploma, and that if the proposal were agreed to there would be applications for diploma of nursing and medical electricity. The report was adopted. A history of the first 50 years of the Melbourne University is to be published as the complement of the recent jubilee celebrations. Some members of the council were disposed to object to the project, but Sir John Madden said the Universities at home thought it highly desirable that there should be an exchange of professors with the Universities here, and the history would be of incalculable service in that connection.

Adelaide.—The Government have been requested by the Adelaide Hospital Board to take steps to have a direct representative of the board on the University Council. There are two members of the board on the council of the University now—the Hon. G. Brookman and Dr. W. T. Hayward. If the Government accede to the wishes of the board an amendment of the University Act will be introduced into Parliament next session.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, the Medical Officer of Health, reports for the month of April, 1907:—Deaths registered in the metropolitan municipalities numbered 479, exclusive of those in the Gladesville and Callan Park Hospitals for the Insane. This figure is a high one—higher than that of any monthly mortality since July, 1906, and is equal to an annual mortality rate of 10·35 per 1000 of the estimated mean population. When corrected by the inclusion of the metropolitan proportion of the deaths in all the benevolent and lunatic asylums in New South Wales, the death rate more accurately represents the true facts, and becomes 11·21 per 1000 living. The deaths from diarrhoeal diseases numbered 45, which is the lowest record for April since 1900. The figure includes 7 deaths from diarrhoea and 38 from enteritis. Infectious diseases, other than diarrhoea, caused 52 deaths. Whooping-cough was responsible for the heavy death roll of 33, all children. Diphtheria caused 8 deaths, plague 4, puerperal fever 5, and scarlet fever, typhoid fever and erysipelas 1 each. Phthisis, with 28 deaths, was less fatal than usual, but both cancer (36) and Bright's disease (34) caused a mortality above the average for the month. Diseases of the heart and blood vessels were responsible for 71 deaths, compared with a quinquennial average for April of 50. Respiratory diseases, with a total of 45, were also more fatal than usual in April. Pneumonia caused 27 deaths, and bronchitis 13. Deaths of infants numbered 126, which is equal to an infantile mortality rate of 95 per 1000 births. The rate would have been extremely low but for the high mortality from whooping-cough. As it is, it is the lowest for April for seven years. The most important causes of infantile death were—whooping-cough 15, diarrhoea 4, prematurity 29, developmental diseases 25, convulsions 4, respiratory diseases 14, enteritis 29. Of the notifiable infectious diseases, 170 attacks were notified. Scarlet fever accounted for 70, diphtheria for 61, typhoid fever for 33, and bubonic plague for 6. Within the city of Sydney 15 cases of pulmonary consumption were notified under the City Council's by-laws; 7 dwellings were disinfected after deaths from consumption.

Typhoid Fever.—It was reported that a rather serious outbreak of typhoid fever had occurred at Tamworth last month, but the official information

in Dr. Ashburton Thompson's possession did not indicate this. Some cases had occurred there, but they had been spread over a long period, and the particulars received through the recognised sources of information were not of a nature to justify any alarm. From January 1st to April 20th 39 cases of typhoid fever were reported; 26 were within the municipal area and 12 outside. The Mayor has given instructions for a strict inspection of premises, and steps have been taken to enforce cleanliness. Several deaths from typhoid have occurred in the hospital, which is overtaxed with patients. The regulations made by the Department of Mines and Agriculture for the sanitation of mines below ground were considered at a meeting of the Board of Health last month, in relation to the present prevalence of typhoid fever at Cobar. It was directed that a sanitary inspector be sent to Cobar to inquire into the underground conditions existing there.

Adulterated Food.—During March 175 samples of food were submitted to the Board of Health by a number of local authorities, for analysis. Ten samples of milk of a total of 111, and 28 samples of groceries out of 64 lots submitted, were found to be adulterated. In 17 cases it was reported that the chemical evidence was sufficient to support prosecution, and instructions were issued that in 11 instances vendors be warned.

The Sydney Water Supply.—Dr. Stokes, Medical Officer for the Board of Water Supply and Sewerage, reports as follows:—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, April, 1907:—

Colour	14° Brown.
Clearness	Marked
Odour	Nil.
Suspended matter	Very slight.
Total solids	8·1000
Chlorine	3·2500
Free ammonia	·0000
Albuminoid ammonia	·0118
Nitrogen as nitrites	·0000
Nitrogen as nitrates	·0093
Oxygen absorbed in 15 minutes	·0164
Oxygen absorbed in 14 hours	·0525
Permanent hardness	1·1
Total	1·7

NOTE.—Parts by weight per 100,000.

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during April, 1907:—

Final Effluents from—	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification.		Incubator Test. Seven days at 57° C
			Total Solids.	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Nitrogen as		Oxygen Ab- sorbed in		Albuminoid Ammonia.	Oxygen ab- sorbed in Four hours.	
							Nitrites.	Nitrates	Three Minutes.	Four Hours.			
Chatswood ..	.. Faint	Nil	34·2	10·2	·945	·295	·027	·570	·097	·408	85·8	83·6	No decomposition
Folly Point..	.. Nil	Nil	60·1	10·2	1·592	·165	·020	·720	·109	·528	90·8	85·6	„ „
Balmoral ..	.. M'k'd	Foul	40·2	11·8	1·836	·437	·104	·244	·236	·946	74·4	69·1	„ „

Harbour Cleansing.—The work of steaming the substructures and facings of certain of the wharfs vested in the Sydney Harbour Trust Commissioners is being continued. Boats are engaged in the work of picking up any dead animals or other decaying matter which may be discovered. During the period from November 1st, 1906, to March 31st, 1907, there were removed from the harbour by this means approximately 1069 rats, 394 cats, 639 dogs, 472 fowls, 100 bags of fish, 151 bags of meat, 16 pigs, 5 calves, 2 sheep, 8 hares, and 24 ducks.

Blackberry in the Catchment Area.—A letter was read at the Board of Health last month drawing attention to the presence of numbers of blackberry pickers on parts of the Catarcat dam watershed, together with the result of inquiries made. The board expressed the opinion that it was desirable that the defective powers for preserving the purity of the watershed at present possessed by the Water and Sewerage Board should be made good with the least possible delay, for it could not be denied that the circumstances to which attention was drawn were untoward and threatening in relation to the water collected by the dam.

Victoria.

Infectious Diseases.—The return of infectious diseases for the fortnight ended April 21st, as compared with the average of similar periods of the previous four years, was of a satisfactory nature. The cases of typhoid reported throughout Victoria numbered 47, with 4 deaths, as against the average of 139 cases and 9 deaths. For the metropolitan area there were 13 cases and 2 deaths, as compared with the average of 39 cases and 2 deaths. The figures for diphtheria were almost exactly the same as the average. Scarlet fever showed a great falling off, the record being 10 cases, with no deaths, as against the average of 102 cases, with 1 death. Of the 10 cases recently reported 6 were in the metropolitan area, where the average is 51.

Sanitary Hairdressing.—The chairman of the Board of Public Health (Dr. Norris) thinks it desirable that by an amendment of the Health Act power should be given to enforce the regulations relating to the cleanliness of shaving saloons. The following directions had been issued by the board to cities, boroughs and towns throughout Victoria:—Hairdressing saloons should be constructed in such manner as to provide for washable non-absorbent walls and floors, adequate sunlighting and ventilation. (Paraffined linoleum affords a satisfactory floor covering.) The furniture and fittings should be such as to be easily cleansed and disinfected. Such heating appliances as will provide hot water in stream should be installed: in the presence of a gas service this is easily practicable. A clean cover (paper or cotton) on headrest should be provided for each customer. The application of the principle of the roll of sanitary paper with the usual fitment would suffice to effect this. (The roll might be employed as the actual headrest.) Razors, clippers, scissors and other instruments should, after they have been cleansed, be immersed in boiling water or other suitable disinfectant. Paper for wiping razors should be clean and disinfected; rubber razor wipers should be disinfected by boiling water or other suitable disinfectant. Shaving mugs should be cleaned and immersed in boiling water or other suitable disinfectant. Hairbrushes should be cleansed and im-

mersed in liquid disinfectant as often as required. Between use on different customers hair brushes should be kept in a fumigated cabinet. Shaving brushes and combs should be cleansed immediately after use, and then plunged in boiling water or in liquid disinfectant. Combs might, with advantage, be made of aluminium. This would allow of their being readily disinfected by the application of heat—boiled, or passed through a gas (bunsen) flame. Strops: Only clean and disinfected razors should be used on strops, so as to avoid transference of blood or matter from face to strop. Shaving soap: Separate portions of soap, whether powdered, cream or solid, should be used for each customer. Astringent blocks or pencils should be discarded in favour of powder or liquid, applied on cotton wool or clean towel. Magnesia block should not be applied direct to face. Powder should be applied by means of a clean towel or cotton wool, the latter being then destroyed. Hairdressers should wash hands after each customer, and wear washable overalls. A clean separate towel should be used for each customer.

South Australia.

East Torrens County Board of Health.—At a meeting of the County Board held on May 1st, the medical officer of health for the month reported 10 cases of notifiable disease. In Norwood 3 pulmonary tuberculosis, in Burnside 1 diphtheria and 2 pulmonary tuberculosis, and in Payneham 2 scarlet fever, 1 typhoid and 1 erysipelas. One insanitary condition was discovered therewith. The trained nurse inspector had visited all the cases, and left printed instructions and notified the schools. One of the pulmonary tuberculosis cases was imported from another district, and the diphtheria to a private hospital. All the other cases are fairly isolated in their homes. Disinfection had been completed in eight houses after recovery and one after removal to the Kalyra Sanatorium. In the St. Peters district 1 typhoid and 2 scarlet fever had been notified. The typhoid had been imported from another State. The scarlet fever cases are both in one house, and well isolated. Disinfection had been completed in one house after recovery, and 16 visits paid to the cases under her observation. The inspector of cattle and dairies had inspected all the butchers twice, and 125 of the cowkeepers' premises, and found them in a very sanitary condition, with the exception of two, who had notice to remove insanitary conditions, which had been done; also inspected 498 of the dairy cattle, and found all in good health. He had examined 217 large cattle and 230 pigs after slaughter, and reports them all free from disease. He had bought three samples of milk, and, after testing, found satisfaction, two yielding 4.0 and one 3.4 per cent. of butter fat. It was resolved to request the Hospital Board to direct that the clothing of patients admitted to the hospital suffering from infectious disease be disinfected before sending them back to their friends, because the appliances in private houses for disinfection are of a limited character.

Health of Adelaide.—The Health Officer reported that during the fortnight ended April 27th eight cases of typhoid fever, three of diphtheria, one of scarlet fever, five of measles, one of erysipelas, and four of pulmonary tuberculosis were notified. All the eight cases of typhoid fever were imported from the suburbs and country for hospital treatment. Of the three cases of diphtheria, one was imported from the suburbs for hospital treatment. The remaining two cases were removed to hospital for isolation and treat-

ment. The case of scarlet fever was imported from the country for hospital treatment. All the cases of measles were isolated at home. The case of erysipelas was imported from the suburbs for hospital treatment. Of the four cases of pulmonary tuberculosis, two were imported for hospital treatment. Of the remaining two cases one was removed to hospital and one was at home under the city trained nurse's supervision. The city trained nurse had made 116 visits to 64 cases during the fortnight, and finally disinfected 13 houses. Of the 64 cases under her care, four were suffering from typhoid fever, two from diphtheria, one from scarlet fever, six from measles, six from erysipelas, and 45 from pulmonary tuberculosis. The acting secretary presented a report regarding the result of rat killing at the City Slaughterhouse, whereby 502 rats had been destroyed at a cost of £6. The committee recommended that operations be continued at intervals during the next month.

Tasmania.

Hobart Local Board of Health.—At a meeting of the Local Board of Health last month the following report from the medical officer of health (Dr. Sprott) was read and adopted:—"During the month of March there were 45 deaths in the registration district of Hobart. In the city proper there were 24 deaths, viz., 14 males and 10 females, giving a death rate of 11.68 per 1000 per annum. The principal causes of death were:—Diphtheria, 1; typhoid, 2; pneumonia, 1; cancer, 3; premature birth, 2; want of breast milk, 2; phthisis, 4; heart disease, 3; and the remainder were of a general character. Ages at death—Five were under one year of age, 13 between 5 and 65 years, and 6 were over 65 years of age. The total number of births registered in the district was 76, viz., 44 males and 32 females. In the city proper 48—29 males and 19 females. There were six cases of enteric fever, one case of scarlet fever, and one case of diphtheria notified during the month." Attention was drawn to a case that had occurred at the City Police Court on April 23rd, when a milk vendor was fined for selling adulterated milk. The defendant pleaded guilty, and the analyst proved that the milk sold by the defendant contained 27 per cent. of added water. The Mayor said the Council was responsible for the purity of all articles of food. He then read an extract from the Public Health Act of 1903, in which the duty of the Council was laid down. He hoped the attention of milk vendors generally, and especially of those in the country, would be drawn to this matter, and that they would take warning by what had occurred. The Mayor stated that the question of an infectious diseases hospital had not been lost sight of. He assured the Council that the question of obtaining a suitable site for a hospital would be proceeded with at once. The Government had expressed their willingness to hand over to the Council the sum of £5000, which was available for the purpose, and he hoped that before long some progress would be made towards a realisation of the scheme.

New Abattoirs.—The City Council has accepted the tender of Mr. R. Duff to erect cattle pens, etc., at the new abattoirs for £8645. In the course of the debate on the motion for the acceptance of this tender a report by the City Surveyor was read, in which he estimated the total cost of the abattoirs at £28,000. As an off-set to this amount, the Corporation will receive £4000 from the Government in connection with the exchange of the site in Lower Macquarie-street for

that at Derwent-park. It was pointed out that in addition to these £4000, £20,000 are provided by loan, leaving a sum of £4000 still to be raised. Up to the present £11,008 have been expended, £6350 on account of the contract for the main building.

Army Hygiene.

At last year's (the 78th) annual conference of naturalists and medical men, held in Stuttgart, an unusual number of valuable papers of great general interest were read. Especially noteworthy was that read by Surgeon-Major Bieck, of Moerchingen, on "The Care of the Body amongst Soldiers." The difficulties presented by the problem of army hygiene are substantially the same in all civilised countries, and are everywhere looked upon as vital. Modern armies are such colossal organisations, the men are recruited from such diverse walks of life, and bring with them such varied physical conditions, that the fostering of the health of the army becomes complicated and exacting.

In a similar problem—that of school hygiene—we notice such a continuous growth of the doctor's direct influence that this has finally led, as is well known, to the institution of the regular school doctor. Similarly, Dr. Bieck advocates a material extension of the army doctor's sphere of operations. He demands that a doctor shall accompany the troops on each long march as adviser to the commanding officer. If he performs his duties properly he would have to advise to a far greater extent than he would have to treat.

Dr. Bieck seeks, as far as possible, to carry this into effect, so that army hygiene shall be, as far as possible, of a preventive nature. Thus the army doctor should make accurate observations on the drill-ground soon after the enlistment of new recruits. The observation of those men who from the very outset appear to him to be weak, to whom the first exercises have already become difficult, and who, in gymnastics and running, quickly get out of breath, may prove the means of preventing the outbreak of many serious illnesses and the occurrence of awkward accidents. In a similar way, with regard to clothing, Dr. Bieck desires the aid of the doctor to be called in. The military authorities will, of course, continue to decide upon the colour, etc., in accordance with military requirements, but the choice and selection of material is a matter which lies essentially within the army physician's province. Thick woollen stuffs are out of place in summer; linen, khaki, and similar fabrics should be provided instead. The summer footwear must also be lighter than that intended for winter use. Dr. Bieck further insists that it is the doctor, and not the field officer, who should decide upon the kind of food supplied to the soldiers. In making out the daily bill of fare it should be borne in mind that, as a rule, Tommy Atkins does not trouble to chew his food, but gulps it down at once so as to gain the feeling of satiety as quickly as possible.

If the doctor really wants to know what the soldier likes to eat he should above all devote his attention to the scraps and remnants of the men's meals, and he will thus very quickly acquire a far more accurate knowledge than by merely tasting the rations before they are served out to them.

Dr. Bieck would like to see all spirits forbidden in the canteens, and when he says that he would very much prefer to see more fatty and albumen-containing foods on sale in such places, he is thinking more especially of the needs of the German soldier.

Of course, all the rooms of the barracks have to be kept most scrupulously clean, for it is only by this

means that the "barrack-room smell" so common in all armies can be got rid of. Dr. Bieck considers the punishment of men for uncleanly habits less effective and important than the encouragement of those who are clean and tidy. If the soldier in barracks learns nothing else but the value and comfort of clean-living rooms, then the army will in one more particular have fulfilled its part as an educator of the people. All barracks should, as far as possible, be provided with swimming-baths. Under all circumstances they should never be without ordinary baths and douches. A good shower-bath once a day should, according to Dr. Bieck, become an axiom of the soldier's life. The hardening and strengthening effects of air and sun baths are well known, and the doctor therefore warmly recommends their use where possible.

Finally, Dr. Bieck lays special stress on the importance of the soldier looking upon the regimental doctor as his confidant. He cannot, it is true, choose his own doctor, and the more he regards him not as a superior but as a well-wisher and adviser, who is anxious to do all he can for him, the earlier will the doctor be in a position to raise the level of the hygiene of the troops.

The Heidelberg Institute for Cancer Research.

ON September 25th last a new philanthropic institute was opened at Heidelberg, in the presence of the Grand Duke and Grand Duchess of Baden. Here it is intended to bring together all the means and methods with which it is hoped cancer can be successfully combated. Organisations which busy themselves with the supervision and statistical survey of cancer patients already exist in several European countries. There is a special cancer ward at the Berlin Royal Infirmary; experimental research into the origin and cause of this dread disease is, thanks to a munificent endowment by a private gentleman, being carried on at the Frankfort Institute of Therapy. At the new Heidelberg institute it is intended to prosecute simultaneously the study of all the remedial agencies hitherto employed. For the carrying out of this work a special surgical department for cancer patients is of the utmost importance, and the celebrated surgeon, Professor Czerny, who has the superintendence of the whole establishment, will perform the operations.

The diseased tissue removed by the surgeon's knife is to be transferred to another department, where it will be subjected to all manners of tests and experiments at the hands of a competent staff of experts in the sphere of biology, bacteriology, chemistry and anatomy. In a third department, some 50 patients, who cannot be subjected to an operation, are to be carefully nursed, and the effect of all remedies which may possibly destroy the cancer cells, or prevent the growth of such, will be investigated there. Further, the medical attendants of all such patients as may leave the institute uncured will be asked to co-operate in a system of supervision of these patients after their return to their own homes, and in order to facilitate this, grants in aid will be allowed to all ex-patients who do not expressly decline them.

It is hoped that in this way it will be possible to calculate the influence of the domestic conditions of the nature of the soil and of the food upon the origin and development of cancer with somewhat more reliance. The institute also offers splendid opportunities to genuine scientific investigators who may come forward with fresh discoveries or offer new suggestions.

The great expense of this institute, dedicated at the

cution of scientific research, is covered by the magnanimous donations of a large number of private individuals. The first move in the matter was taken by Professor Czerny at the international congress of surgeons six years ago. His appeal has met with a sympathetic reception in all parts of the German Empire. Germany is prepared to make great sacrifices in the fight against cancer, as in the struggle with consumption. Even now the reports made by authoritative scientific pioneers, at the recent congress for cancer research held at Frankfort-on-Main, strike a more hopeful note.

It is to be hoped that Czerny's desire that cancer in the near future may be numbered amongst the preventive and curable diseases will be fulfilled.

HOSPITAL INTELLIGENCE.

Melbourne Hospital.—At a meeting of the committee of management of the Melbourne Hospital held on April 30th, the nine students who had taken the highest positions on the medical honours list at the University were introduced to the committee. The report of Mr. Francis T. Short, the Inspector of Charities, as forwarded by the Under-Treasurer, was considered. This report stated:—The principal sources of revenue during the past two financial years were as follow, the figures given being respectively for 1905-1906 and 1904-1905:—Municipal grant, £760, £712; private contributions, £4150, £4008; entertainments, £308, £502; church collections, £2211, £1605; patients' fees, £5049, £2354; interest on investments, £2024, £1908; visitors' fees, £708, £645. The leading items of expenditure for 1905-1906 and 1904-1905 respectively were:—Provisions, £6517, £6676; surgery and dispensary, £4585, £4509; domestic, £3258, £3256; establishment charges, £530, £611; salaries and wages, £7832, £7807; miscellaneous, £601, £531; administration, £1388, £1558. The institution closed the year with a debit balance of £625 after allowing for the payment of accounts due at the close of the financial year. The cost per bed during last year was £67 1s 7d, compared with the mean cost of general hospitals of £57 17s 2d. Although lately the cost at this institution has been slightly reduced, yet many of the items of expenditure were still high. In my annual reports I have frequently pointed out that the cost of a general hospital should not exceed £60 per annum, when compared on the basis of 3s 6d per out-patient, as is the practice in this State. The Sydney Hospital, which is similar to the Melbourne Hospital in being the principal general hospital of the State, and which has an almost equal number of occupied beds, only estimates the cost of each out-patient at 1s 2d. On this basis the cost per bed at the Sydney Hospital works out at £68 14s 4d, and that of the Melbourne Hospital at £76 5s 5d. On the 3s 6d basis, Sydney Hospital is £58 0s 9d and Melbourne Hospital £67 1s 7d. The high cost at the Melbourne Hospital is attributed by the committee to the necessity for erecting a more up-to-date structure, the present buildings necessitating the employment of a largely increased staff. There is no doubt but that this is the main cause, and that if the lift system were introduced generally at the hospital a very large saving annually would be effected in labour. But there are several other items of expenditure in which the Sydney Hospital is more economical than its sister institution:—Provisions—Melbourne Hospital £6517, Sydney Hospital £5692; drugs—Melbourne Hospital £1935, Sydney Hospital £1357; dressings—Melbourne Hospital £1693, Sydney Hospital £735; instruments—Melbourne Hospital £548, Sydney

£1680, Sydney Hospital £1137. The fact that the Melbourne Hospital is a large training school for students does not affect the question of expenditure. The average cost of each in-patient was £4 7s 3d, and the estimated cost of out-patients £3252. The total number of in-patients treated during the year was 4802 and of out-patients 18,586. After discussion it was agreed that the secretary should look into Mr. Short's figures and prepare a report for submission to the next meeting.

Women's Hospital, Melbourne.—At its meeting last month the committee of the Women's Hospital decided to proceed at once with the erection of the pathological block and the eclamptic ward, which form portion of the buildings provided for in the competitive design recently accepted by that body. The new buildings, the plans for which have been approved of by the Board of Health and the honorary surgical staff, will be erected on the north-east corner of the grounds, the estimated cost being £722.

Royal Prince Alfred Hospital, Sydney.—The annual meeting of the board of management and subscribers to the Royal Prince Alfred Hospital was held last month. The annual report set out the number of patients under treatment during the year as follows:—Remaining in hospital, December 31st, 1905, 248; admitted during the year 1906, 4297; total under treatment, 4545. Of these, 2822 were cured, 801 relieved, 248 unrelieved, 380 died, and 294 remained in hospital December 31st, 1906; total, 4545. The number of beds in the hospital was 318; average number of patients resident daily was 295; mean residence of patients in days was 26.10; rate of mortality per cent. (deducting the 42 deaths which occurred in patients within 24 hours of admission) was 7.54; rate of mortality per cent. over total cases under treatment was 8.36; number of attendances in out-patient and casualty departments was 50,315; and the number of individual patients in these departments was 12,579. Of the patients admitted during the year 2728 were cases of accident or urgency or non-paying; and 1569 contributed more or less towards their maintenance while in the hospital; and 39 were treated in the Ogilvie and John Fairfax wards. The total amount received from contributing patients during the year was £2913 13s, as compared with £2359 11s 11d in 1905. The financial statement for 1906 disclosed a deficiency of £3843, brought about by the increased number of beds available, and in carrying out works recommended in the secretary's report. Professor Anderson Stuart, in moving the adoption of the report, said:—With regard to the medical side of their work, the statistics disclosed a large increase in the number of patients treated, and an entire change in the figures, owing to the fact that the directors had opened a large number of extra beds. Thus the average number of patients treated was 295 daily, against an average of about 230 for a number of years previously, and the total treated was 4545, against 3456 in the previous year. With regard to the out-patients, there was, of course, not the same increase, but the number of out-patients and casualty cases treated numbered 12,579, the attendances at the hospital being over 50,000. The operations performed again increased, the total number for the year being 2749, against the previous highest number recorded of 2337. It had been necessary to add to the general surgical and medical staffs owing to the increase of work from the opening of the new pavilions. The honorary staff now numbers 29 members. Two old members of the staff, however,

had left, Dr. Hankins, who was a member of the original surgical staff, appointed in 1882, and who had been connected with it ever since, and Dr. Clubbe, who joined the staff in 1888, and whose term expired by effluxion of time. Both of these gentlemen had given excellent service to the institution. As an outcome of the establishment of a medical gymnastic department the massage work of the hospital had been extended, and there were 15 honorary masseurs and masseuses, some of whom were engaged in the work of massaging the in-patients, while some carried on the work among the out-patients. The nursing staff now stood at 95. The most important matters of administration during the year had arisen out of the report of the secretary, Mr. Epps, who was sent on a tour of the world inspecting hospitals, with a view to picking up points and wrinkles. He did his work excellently, and put forward a number of most valuable recommendations, nearly all of which had been adopted, and many of which have already been put into operation. At the last monthly meeting of the board of directors, the report of the work of the institution for March showed that 336 patients had been admitted, of whom 129 contributed to the cost of their maintenance, and 207 were accident and non-paying cases, 226 patients were discharged cured, 79 relieved, and 23 unrelieved, while 26 had died. There remained in the hospital 277 patients at the end of the month, the average number of occupied beds having been 288. Of the discharged patients, 29 had been transferred to the Carrington Convalescent Hospital and one to the Walker Hospital; 225 operations had been performed. Hon. H. E. Kater was re-elected hon. treasurer for the coming year. The question of the best means of heating the wards of the new pavilions was considered, and it was decided that steam radiators be adopted. It was agreed that the work of placing retaining walls in front of the new pavilions and the laying of concrete on the areas below was urgent, in view of the necessity for protecting the foundations, and it was decided that a contract be let for the completion of this work. A lengthy inquiry was held into certain complaints made against the hospital officials by the Manchester Unity of Oddfellows, and after taking full evidence it was agreed that there was no justification for the statements made.

The Royal Alexandra Hospital for Children—Last month the Premier received a deputation asking for financial assistance for the Children's Hospital. It was stated that the institution had an overdraft at the bank of about £2000, and the situation was such that unless assistance was rendered it would be impossible to pay salaries and tradesmen's accounts for May. The request, therefore, was that a grant should be made to tide the institution over its difficulties. It was mentioned that the annual income was about £6300, against an annual expenditure of about £9300. Efforts were being made to increase the subscriptions by £3000 per year, and it was expected that success would be achieved. The Premier, in reply, said he would look into the affairs of the Children's Hospital, and would render the assistance necessary to tide it over the present difficulty. He hoped to be able shortly to put the committee of management in a position to go on with the erection of the nurses' home. He hoped to introduce a bill to Parliament at an early date for the creation of a hospitals' board, which would attend to the distribution of Government subsidies to hospitals and other charitable institutions, both in the city and the country.

Alfred Hospital, Melbourne.—At a meeting of the Alfred Hospital managers on May 3rd the Board of Health notified that it approved of the opening of the new operating theatre. No official opening will take place. Mr. Michaelis proposed that fortnightly instead of weekly meetings of the board should be held. He was supported by Mr. Collins, who said that weekly meetings involved a great sacrifice of time and much inconvenience. It was pointed out, however, that the constitution would have to be altered by the general court of contributors before the change could be effected. It was resolved to bring up the matter for consideration at the annual meeting.

Adelaide Hospital.—The Adelaide Hospital report for 1906 shows that 3227 cases were dealt with, including 3056 new admissions and 171 remaining in the hospital on December 31st, 1906. Of this number, 1295 were discharged as cured or convalescent, 1183 as relieved, 307 as "unrelieved," at own request, or absconded. There were 253 deaths, and at the end of the year 189 patients were left in the hospital. The rate of mortality on the whole number of patients was equal to 7·8 per cent., and on the enteric fever cases 21·2 per cent. The average cost per bed was £87 16s 7d, and the total annual expenditure (including the cost for 21,902 outpatients) £15,919. The annual contributions received totalled £915, and the fees received for maintenance of patients £739. The number of operations performed was 1371, and 36 midwifery cases were attended to. In the infectious diseases block 37 cases of scarlatina and 9 of diphtheria were treated and cured, and of 9 erysipelas patients 8 were cured and 1 relieved. At the beginning of the year Dr. Reissman reported there were 23 consumptive patients remaining from the previous year; of these, 6 died, 5 were discharged at their own request because they thought themselves fit for work (2 have since been readmitted, of whom 1 has died), and 11 were in the home on December 1st, 1906. Of the 14 consumptive patients originally admitted when the home was first opened in 1904, 10 have died, and 1 who left has not since been heard of. During 1906 67 cases of consumption were admitted; 34 died, 6 left at their own request, and 2 left without permission, 3 were discharged, 1 was transferred to a surgical ward, and 21 remained in the hospital on December 31st. The majority of the patients (viz., 29) were admitted from the suburbs of Adelaide, 16 came from the city of Adelaide, 11 from the country, 2 from Broken Hill, 1 from Western Australia, and 1 (a sailor) from London. In 48 cases, where the onset of the disease could be fairly dated, it was found that 7 had suffered from it for less than a year (shortest time two months), 22 for from one to two years, 8 from three to five years, 6 from six to ten years, 4 from ten to 20 years, and 1 had contracted it 25 years prior to admission. In 17 cases it was ascertained that the patient had contracted the disease from another consumptive. Twenty-three patients admitted that one or more members of their families had suffered from consumption, while 29 stated that no other members of their family had consumption. There had been instances where more than one member of the same family had been in the home at the same time. In 52 cases where the expectoration was examined the presence of the tubercle bacillus was discovered 51 times; in the remaining case no bacilli have been found after repeated examinations, but the diagnosis of consumption was confirmed by the tuberculin test. All the patients were suffering from the disease in an advanced stage. In 33 cases the lungs were diseased throughout, in 23 cases three lobes were

affected, in 4 cases only two lobes were affected, in 2 cases only one lobe of the lung was involved. Seventeen cases of cancer were admitted, of whom 11 died, 2 left at their own request, and 4 remained in the home at the end of the year. Dr. T. Borthwick reported that 1220 bacteriological examinations were made. Widal's test for typhoid fever was applied in 230 cases, of which 71 gave a positive and 159 a negative reaction. Sputum was examined for tubercle in 569 cases, of which 184 gave a positive and 385 a negative result. Of the total, 375 specimens came from the indoor department, 122 from the outdoor department, and 72 from the Consumptive Home. Patients had been treated by massage daily both in the wards and the outpatients' department, as follows:—Hemiplegia, 6 cases—4 with good results, 1 with fair improvement, 1 unimproved; spastic paralysis, 1 case, unimproved (treated one week only); fractures (ankylosed), 10 cases, all cured; thrombosis, 2 cases—one greatly relieved, one only temporary relief; paresis, 3 cases, very much improved; rheumatism, rheumatoid arthritis, 1 each, both much improved.

Hobart General Hospital.—At a meeting of the General Hospital board held last month the finance committee reported:—The salary abstracts and accounts for the month of March, amounting in all to £842 19s 8d, were examined, found correct, and passed for payment. The fees collected during the month amounted to £97 19s 2d, and at March 31st the sum of £455 6s 4d remained on the books for collection. During the month 213 patients have been treated in the hospital. Of this number 10 died, and 105 were discharged, leaving in the institution on April 1st 64 males and 34 females. The daily number of occupied beds was 104, as compared with 86 in March last year, and 91 in 1905. In the out-patients' department 106 new cases were treated, casualties 22; total attendances, 423. The secretary read some correspondence re the establishment of a dental department in connection with the hospital. In forwarding it the Premier said he would be very pleased if the board of management could see their way to give early and favourable consideration to the matter. The question was referred to the medical committee. Dr. Crowther again called attention to the proposed naming of the wards after donors instead of on the old-fashioned system still pursued in the Hobart Hospital of numbering them. This matter was also referred to the medical committee. An application by Dr. Roberts, the house surgeon, for an increase of salary was discussed, and it was decided to increase the salary by £50 a year.

Children's Hospital, Brisbane.—The amount required for the infants' ward has been fully raised. The funds of the new diphtheria ward have also been secured, and the plans for the new buildings are now being prepared. A serious difficulty, however, still confronts the committee—namely, the necessity for an increased area of land. The new wards to be erected will include a diphtheria ward, and, if possible, a small isolation ward will be provided for other infectious cases, such as measles, whooping-cough, etc. An effort is being made to obtain a small triangular piece of waste land, which lies close to the old diphtheria ward of the Children's Hospital. This piece of land, which consists of some seven acres, though included in the original reserve, has never geographically formed part of the park, and is not likely ever to be used in connection with it.

Children's Hospital, Adelaide.—At the Adelaide Children's Hospital alterations are being

effected which will bring the institution thoroughly abreast with the times, in the matter of a steam laundry and in several other respects. Such improvements are thoroughly in keeping with the modern tone of the institution, and, although they will occasion the expenditure of about £5000, the outlay is well warranted. The desirableness of a steam laundry has been recognised for a number of years; lack of means has, however, prevented any action from being taken. Recently there has been a fair prospect of that obstacle being removed, and the matter was taken into earnest consideration. The plan of the design includes a steam laundry, with modern appliances adequate to the requirements of the hospital, even should its accommodation be increased twofold. There are to be two electric lifts, one for the laundry and one for the kitchen department. These lifts will carry trollies to the level of the floors of the wards, and will largely reduce the labour that has been heretofore required. It is intended to have only the most recently improved machinery available for the laundry. The additions and extensions have practically doubled the outlay that would have been required had arrangements for the laundry alone been in contemplation. The contract for these alterations amounts to £3630. At least another £1000 will need to be expended in machinery. The entire undertaking, therefore, including fittings for gas, electricity, and water, will not be under £5000. The scheme does away with a large number of inconveniences and anomalies that have gradually come into existence, as the hospital has been extended and adapted from time to time. The board proposes to provide the requisite funds without making any special appeal to the public. Sums amounting to £1000 had been set aside for laundry purposes, and an anonymous gift of £100 has since then been received. It is possible that other amounts will come in from legacies and odd sources, and they will also be utilised. To cover the remainder it is intended to appropriate the income from the Thomas Martin legacy for two or three years, as may be required.

The Royal Alexandra Hospital for Children.

A clinical meeting was held at Valentine-lane, Sydney, on April 19th; Dr. Littlejohn presided.

Dr. LITCHFIELD showed a boy, aged 2 years and 2 months, suffering from a spinal curvature in the dorso-lumbar region. One half of the members present regarded it as Potts' disease, while the others thought it was a rachitic spine.

Dr. HIPSLEY showed a boy, aged 6 years, suffering from a defect of speech. The boy was unable to pronounce the consonants, with the consequence that his speech was quite unintelligible.

Dr. LITTLEJOHN exhibited a girl, aged 10 years, suffering from psoriasis of the finger-nails; also a baby aged 12 months suffering from tenderness of the limbs, which he thought was due to scurvy, but which was clearing up more slowly than usual under an anti-scorbutic diet.

Dr. LIGHTOLLER showed, for Dr. Binney, a cretin, aged 12 years, who was also suffering from a spina bifida and talipes equino-varus.

On May 4th the annual collection in aid of the Sydney hospitals was made. The total receipts amounted to £5546 14s 1d, as compared with £5060 10s 8d last year.

OBITUARY.

ROLAND MACLEAN, M.B. (Melb.), 1895, B.S. (Melb.), 1896, Narracoorte, S.A.

We regret to record the death of Dr. Roland Maclean at the early age of 35 years. He was the second son of Mr. James Maclean, of Ararat, Victoria, and graduated in medicine at the University of Melbourne in 1895. He practised his profession at Narracoorte, South Australia, until a few weeks before his death. He contracted influenza in a severe form last November, and appears to have never completely recovered from the effects of this illness. He died in a private hospital at Seymour, Victoria, leaving a widow and one child. Much regret is felt at the early death of one who was very popular, and gave promise of a highly successful professional career.

DR. E. W. CROKER.

Dr. E. W. Croker, Medical Officer in the Colonial Hospital, Fiji, contracted blood poisoning while performing a post-mortem examination and died at the end of March last. He was much esteemed in the Island, and his funeral, one of the largest ever known there, was attended by his Excellency the Governor.

MEDICAL NOTES.

Charitable Bequests and Donations.—The following bequests have been made in the will of the late Mr. R. A. Holmes, of Ballarat, Victoria:—Ballarat Hospital, Ballarat Benevolent Asylum, and Ballarat Orphan Asylum, from £4000 to £4500 each; Ballarat Ladies' Clothing Society, Ballarat Town Mission, Ballarat Female Home, and Ballarat Children's Home, about £2200 each. Local charities will benefit under the will to the extent of about £27,000. Sir Edwin Smith, of Adelaide, S.A., has donated £4500 to some South Australian institutions, including the following medical charities:—Home for Incurables, £500; Children's Hospital, £200; Queen's Home, £100; Convalescent Home, Semaphore, £100; Convalescent Home, Mount Lofty, £100. Under the will of the late Mr. Robert Stroud, of Melbourne, a special bequest of £1250 has been made to the Eye and Ear Hospital, Melbourne, to endow a bed in that institution to be known as the "Robert Stroud Bed." The residue of the estate, i.e., £30,869, is to be apportioned by Mr. Bell among the following public charitable institutions:—The Alfred Hospital, Austin Hospital, Melbourne Hospital, Homeopathic Hospital, St. Vincent's Hospital, Victorian Eye and Ear Hospital, Children's Hospital and Queen Victoria Hospital for Women, Melbourne Benevolent Asylum, Carlton Refuge, Melbourne Orphan Asylum, Old Colonists' Home, St. John Ambulance, Blind Asylum, Deaf and Dumb Institution, Immigrants' Home, and the Sanatorium for Consumptives.

Infants' Home, Ashfield, N.S.W.—At the thirty-second annual meeting of the Infants' Home, Ashfield, held last month, the annual report showed that during the year 77 mothers and 141 children had received shelter in the home. The 77 mothers included two widows in destitute circumstances, three deserted wives, and four women whose husbands were out of work. The remaining 68 were single girls. There were 20 deaths of children and 47 remained in the institutions the remainder having gone out with their mothers, or

been restored to their friends, or to the care of the Government as State children. A kindergarten class had done much useful work. An outbreak of diphtheria had occurred during the year, with two fatal results. It was pointed out that the financial outlook of the institution was rather serious. The medical report submitted by the hon. medical officers, Dr. A. E. Mills and Dr. J. I. C. Cosh, showed that the comparatively high death rate was due to the increased number of premature births and the number of cases of gastro-enteritis. The balance-sheet showed a credit balance of £415. The total expenditure for the year was about £1400.

Hobart District Nursing Association.—The annual meeting of the Hobart District Nursing Association was held last month. The main thing to be noted in regard to this association for the past year is the very large increase in the work of the nurses, who have paid no less than 6716 visits to patients in the 12 months. Dr. E. L. Crowther, M.H.A., said there was not a charity which appealed to his sympathy more than this. He was pleased to hear they had a good balance. They had two good nurses, but he thought they required a third. If they could not afford a third nurse, then let them provide an additional telephone, which would very much extend the usefulness of the association. The hon. treasurer read the statement of accounts, which showed receipts as follows:—Balance, £312 10s 7d; Fitzgerald's employees' fair, £111 6s; special donations, £44 16s; collections, £103 15s 4d; interest, £8 19s 10d; total, £581 6s 4d. The expenses amounted to £368 15s 1d, of which £160 was in salaries for the nurses.

Dengue in Fiji.—Dengue fever is reported to be prevalent all over Fiji. The type is more severe than usual, and much inconvenience is being felt by its victims.

Canterbury Sanatorium for Consumptives.

—On Wednesday, March 20th, the foundation stone of the Canterbury Sanatorium for Consumptives, N.Z., was laid by the Acting-Premier, Mr. Hall-Jones, in the presence of a large number of people who have taken an active interest in the undertaking. The site, which was given by Mr. Cracroft-Wilson, is situated on a beautiful slope of the Cashmere Hills, about three miles from Cathedral Square, the solid spur upon which the building will be erected being about 220 feet above sea level. After the stone was declared "well and truly laid," the Minister congratulated all those who had taken part in providing the ground and the buildings, and equipping the latter. Mr. Cracroft performed the ceremony of laying the commemoration-stone, and said that his family was doing nothing but its duty in giving a small part of the land in its possession to provide room for those whom fresh air and a bright outlook would help to bring back to health and strength.

Macleay Fellowship in Biochemistry.—At the April meeting of the New South Wales Linnean Society the president announced the election of Mr. J. M. Petrie, D.Sc., F.I.C., to a Macleay Fellowship in Biochemistry. Dr. Petrie has had a distinguished career in chemistry. Born at West Calder, in Scotland, he commenced his studies at the Heriot-Watt College, in Edinburgh. On coming to Australia he was for some time assayer to the Mint, and afterwards Lecturer in Chemistry at the Technical College, Sydney. He continued his training at the University of Sydney,

where he graduated with first-class honours in 1901. In 1904 he was awarded a Caird Research Scholarship in Chemistry, and in 1905 he took his degree of Doctor of Science and was awarded first-class honours and medal. Professor Anderson Stuart has allotted him accommodation in the Department of Chemical Physiology at the University, where Dr. Petrie proposes to study the chemical features of the Australian plants, with a view to increasing the knowledge of the poisonous and medicinal properties of our flora.

Linnean Society of New South Wales.

Mr. A. H. S. Lucas presided at the meeting of the Linnean Society last month, and stated that the council had been asked by the Royal University of Upsala and the Royal Swedish Academy, Stockholm, to take part in the celebrations of the 200th birthday of the great scientist, Carl von Linné. It was therefore proposed to have a fitting celebration on May 23, when several short addresses upon the life and work of Linnæus, as he was called, would be given. Mr. W. W. Froggatt, F.L.S., showed specimens of the plague grasshopper (*Adaleus senegalensis*) which was recently very plentiful in the Mudgee and Singleton districts. He also exhibited a fine collection of flower wasps of the variety thynnus. An interesting collection of fungi, chiefly from trees and decayed logs, was shown by Mr. Edwin Cheel. Representatives of 29 genera and 38 species, all adequately named, were presented for inspection. The papers contributed included one little-known desmids (minute vegetable water growths) of New South Wales by Mr. G. I. Playfair, in which 350 species were mentioned. Mr. R. R. Turner, F.E.S., submitted a paper on a collection of thynnus wasps. Messrs. E. J. Goddard, B.A., B.Sc., and H. I. Jensen, B.Sc., contributed an admirable paper on foraminiferous sands collected by Mr. C. Hedley, F.L.S., in the Gulf of Carpentaria, and by Miss Lodder, hon. curator of the Launceston Museum in Tasmania. Mr. J. J. Fletcher (hon. secretary) showed a portion of the fossil jaw of an extinct giant marsupial (*Diprotodon australis*) from the South Australian Museum, and mentioned that perfect casts of this great animal, which possessed a massive head, and was of the plantigrade family, had been secured by the South Australian palæontologists. A rich find of the fossil remains had been secured at Lake Callabona.

The Monthly Shilling Fund in aid of St.

Vincent's Hospital, Melbourne, is being steadily extended, and the amount received up to date is £625. About £125 is still to come in from those who are enrolled as contributors. It has been already stated that the Government will subsidise the shilling contributions at the rate of 20 per cent., and this should be an encouragement to those who are endeavouring to reduce the debt on St. Vincent's Hospital. The authorities have decided to advertise the names of the ten highest collectors.

Inebriate Institution.

—The Government of Victoria have decided to use the Castlemaine Gaol as an inebriate asylum. This will be in addition to the inebriate institution to be established on the Lara Estate. The Inspector-General of the Insane, Dr. Jones, who has the administration of the law relating to inebriates, has divided them into three classes, viz.:—(1) The better or paying class of inebriates; (2) the inebriate who is respectable and desirous of being reclaimed; and (3) the inebriate of the irreclaimable and vagrant class. The first two classes will be treated at

the Lara Inebriate Institution, and the third class will be dealt with at the Castlemaine gaol, in which there is accommodation for 99 persons. The building will cease to be a gaol, and some alterations will be made to fit it for its new purpose. The persons sent to it will be of the class that are continually coming before the courts for drunkenness and receiving sentences for short terms of imprisonment. The institution at Lara is to be opened first.

Fair progress is being made with the improvements to the insane asylums in Victoria. One of the new wards at Yarra Bend has been opened, and the second ward will be ready this month. The new wards at the Ballarat Asylum are nearly ready, while the receiving house at Royal Park is practically finished and only requires sewerage.

An anonymous writer offers to donate £250 to the building fund of the Devon Hospital, Tasmania, conditionally that a similar amount be raised, free of commission. The offer is open to the end of the present year.

The scheme drawn up by Dr. Norris for reform in local health administration in Victoria by the constitution of combined sanitary districts with whole time officers of health, has been considered by the board. After discussion, the scheme was adopted and ordered to be sent to the Municipal Association.

PERSONAL ITEMS.

The officers and members of the Rose of Annandale, Sydney, Lodge, U.A.O.D., met last month for the purpose of wishing Dr. Tudor Jones (medical officer of the lodge) a pleasant visit to the old country, and presenting him with a pair of field and marine glasses.

Dr. P. Kennedy, of Albury, N.S.W., was entertained last month at a complimentary banquet at the Town Hall on the eve of his departure on a trip to Europe. The Mayor presided.

The estate of the late Dr. G. F. McWilliams, of Perth, Western Australia, has been proved at £23,975.

Dr. Sharpe, of Candelo, N.S.W., met with an accident while being driven to Bega. The horses bolted and ran into an embankment. The occupants of the vehicle were thrown out, and were not seriously injured.

Dr. Constance E. D'Arcy, late resident medical officer at the Royal Hospital for Women, Sydney, has commenced practice at 207 Macquarie-street, Sydney.

Dr. R. W. Stewart, who arrived in Port Pirie, South Australia, over a quarter of a century ago, is about to take a trip to England, and he has been presented lately by the townspeople of Port Pirie with a travelling trunk. Dr. Harris is Dr. Stewart's successor at the hospital.

WANTED, for the Jundah District Hospital, Queensland, a Duly Qualified MEDICAL PRACTITIONER (Male or Female). Salary, £300 per annum and right of private practice. Doctor to find own instruments. Copy of Hospital Rules can be seen at the "A.M.G." Office, or on application to the Committee. Applications with testimonials close July 5th. Duties commence August 3rd. Fare paid if medical officer stays 12 months.

Dr. Richard T. Jones, who for the past 20 years has acted as one of the medical officers to the Ashfield Lodge, Sydney, of the M.U.I.O Oddfellows, was lately presented with an illuminated address by the members, the occasion being the eve of his departure for a trip to Europe. The Petersham Lodge of the same order also presented the doctor with an illuminated address, and the members of the Lodge Endeavour gave him a travelling bag, fitted with toilet requisites. Dr. Jones has resigned his position as trustee of the Western Suburbs Cottage Hospital.

Dr. Carty Salmon, M.P., Melbourne, Victoria, has left for a trip to the Malay States for the benefit of his health.

Dr. Alfred Webster, for the Coolgardie, W.A., magisterial district, and Dr. Thomas Bowerman, Belgrave, for the Gascayne magisterial district, have resigned their positions as Justices of the Peace.

The members of the staff of the Ararat Asylum for Insane, Victoria, recently assembled in the concert hall to bid farewell to Dr. and Mrs. Godfrey on the eve of their departure, and Mrs. Godfrey was presented with a set of opera, field and marine glasses. Dr. Godfrey has been appointed as Government Medical Officer during the absence on leave of Dr. O'Brien, when he will take charge of the new receiving house, etc., at Kew. His successor at Ararat will be Dr. Gamble, medical officer at Kew.

Dr. J. B. McLean, Medical Superintendent of the Brisbane General Hospital, is at present enjoying a holiday at Tewantin.

A farewell social was tendered to Dr. A. E. Taylor, who is leaving Outtrim, Victoria, for a trip to England. Dr. Taylor was presented with a gold Masonic pendant by the Outtrim residents; the Jumbunna residents presented Dr. Taylor with a pair of handsome gold sleeve links and a gold-mounted fountain pen.

Dr. Montgomery, medical superintendent of the Claremont Hospital for the Insane, in West Australia, and in charge of the Lunacy Department of the State, was walking through the grounds when a patient suddenly attacked him with a large stone. The doctor was struck a violent blow on the head, which rendered him unconscious.

Dr. Proctor, of Mount Pleasant, South Australia, while returning from a visit to a patient at Mount Torrens, on April 19th, had his motor car capsized owing to the slippery condition of the roads. The wheels skidded, and the wind caught the hood and overturned the car. The doctor escaped without injury, but the car was rather seriously damaged.

Dr. Sutton has resumed practice at 3 North Quay, Brisbane.

Dr. Ingham, of Dimboola, Victoria, has left for an extended holiday in Europe and America. Dr. Wood will act as *locum tenens*.

Dr. Rosa Collier, who has practised for the past year in the Palmerston and Waikouaiti district, along with Dr. W. Hislop, has started practice at Middlemarch, N.Z.

Dr. Chapple has returned to Wellington, N.Z., from an enjoyable trip to Europe.

Dr. Barclay, of Waimate, N.Z., while out motoring with his son and another young man in February last, collided with a cart. The young fellow in the motor-car was killed, the doctor and his son escaping with minor injuries.

Dr. A. G. Corbin, late Medical Superintendent of the Sydney Hospital, has commenced practice as an ophthalmic surgeon at 235 Macquarie-street, Sydney, in partnership with Dr. Roland Pope.

The late Dr. James Thomas Rudall, formerly of Collins-street, but lately of Malvern-road, Armadale, Victoria, who died on March 4th last, left by will dated November 18th, 1901, estate of the value of £540 realty and £9580 personalty to his widow and children.

Dr. H. S. Newland, who has been on a visit to America and Great Britain, is returning to South Australia by the Lund steamer Commonwealth, which vessel left London on April 30th.

Dr. H. W. Sweetman, the newly-appointed assistant house surgeon at the General Hospital, Launceston, Tas., arrived from Melbourne on April 27th.

Drs. Hampden Carr, Oliver Leitch, and Arthur Norris Wilkinson have resigned their positions as honorary medical officers of the Port Pirie Hospital, S.A.

Dr. G. H. Salter, owing to ill-health, is relinquishing his medical practice at Ballan, Victoria, where he has practised for the past 14 years. Dr. Lemmon, of Daylesford, succeeds him.

MEDICAL APPOINTMENTS.

VICTORIA.

Turnbull, H. H., to be Senior Resident Medical Officer at the Children's Hospital, Melbourne, *vice* Dr. F. Andrews, resigned.
White, Edmund, to be resident Medical Officer at the Warrnambool Hospital.

The following gentlemen to be Officers of Health for the Districts and opposite their names:—

Mackie, David William Hartnell, M.B., Shire of Creswick, *vice* Charles Edward Barnard, M.D. resigned.
Robinson, Douglas Albert, L.R.C.P., Shire of Hampden, East Riding, *vice* Lionel Norton Hoysted, L.R.C.S., resigned.
Webb, Arthur Bridges, M.B., Shire of Hampden, North Riding, *vice* James Blair Donaldson, L.R.C.P., resigned.

SOUTH AUSTRALIA.

Harris, James Frederick, M.B., Ch.B., to be a Health Officer at Port Pirie, *vice* Robert Walter Stewart, L.R.C.P., M.R.C.S., resigned.
Kerr, David, M.B., Ch.M., to be a Member of the Board of Advice for the School District of Angaston, *vice* Shannon, deceased.
Mathwin, Frank Sirett, M.B., Ch.B., of Snowtown, to be a Public Vaccinator.

WESTERN AUSTRALIA.

Trethowan, W., to be a member of the Medical Board, Perth, *vice* Dr. G. F. McWilliams, deceased.

QUEENSLAND.

South, Harold, to be Medical Officer of the Boonah Hospital, *vice* Dr. Baxter Tyrie, resigned.
Paton, Gordon, to be Resident Medical Officer of the Brisbane General Hospital, *vice* Dr. Doyle, resigned.

NEW ZEALAND.

Bett, Francis Arnot, M.B., Ch.B., to be a Port Health Officer for the Port of Nelson, and Public Vaccinator for the District of Nelson, *vice* Dr. Hudson, resigned.
Beedie, William, M.B., Ch.B., to be a Public Vaccinator for the District of Birmingham, *vice* Dr. Hall, resigned.
Coughtrey, Millen, M.B., Ch.M., to be Gaol Surgeon of H.M. Prison at Dunedin, *vice* Dr. Burns, deceased.
Gilray, Dr., to be Senior House Surgeon in the Wellington Hospital.
Patrick, W. H., to be Junior House Surgeon of Wellington Hospital.
Yeates, Edward, L. & F.R.C.S. (Irel.), L.K.Q.C.P. (Irel.), L.M.K. Q.C.P. (Irel.), to be a Port Health Officer for the Port of Hokianga, *vice* Dr. Coto, resigned.

The following gentlemen have been appointed Public Vaccinators for the districts set opposite their names respectively, viz.:—

Collier, Rosa, L.R.C.P., L.R.C.S. (Edin.), L.F.P. & S. (Glas.), 1905, Middlemarcn.
Gilpin, Robert Harrison, L.S.A. (Lond.); M.R.C.S. (Eng.); L.R.C.P. (Lond.), Whangaroa.
Gow, Peter, M.R.C.S. (Eng.), L.R.C.P., Lond., *vice* Dr. Green, resigned, Winton.
Reekie, John Singasby, M.D., M.S. (Kingston, Ont., Canada), *vice* Dr. Williams, Pukekohe.
Yeates, Edward, L. & F.R.C.S. (Ire.); L.K.Q.C.P. (Ire.); L.M.K.Q.C. (Ire.), Hokianga.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following gentlemen have been registered as Legally Qualified Medical Practitioners in their respective States, viz.:—

NEW SOUTH WALES.

Moran, Herbert Michael, M.B. (Syd.), 1907.
For Additional Registration.
Buchanan, George Arthur, Ch.M. (Syd.), 1904.
Fox, Hedley Ebenezer, Ch.M. (Syd.), 1905.

VICTORIA.

Bourke, Hugh Stanislaus, M.B. & Ch.B. (Melb.), 1907.
Campbell, Sarah Maud, M.B. & Ch.B. (Melb.), 1907.
Catarinich, John, M.B. & Ch.B. (Melb.), 1907.
Garnet, Wesley Deravin, M.B. & Ch.B. (Melb.), 1907.
Ewbank, William Withers, M.R.C.S. (Eng.), L.S.A. (Lond.), 1887.
Foley, John Hamilton, L.R.C.S. (Irel.), 1883; L.K.Q.C.P. (Irel.), 1885.
Joynt, Oswald, M.B. & Ch.B. (Melb.), 1907.
Ley, Mark Aloysius, M.B. & Ch.B. (Melb.), 1907.
Looney, Frank Harold, M.B. & Ch.B. (Melb.), 1907.
Maclure, Alfred Fay, M.B. & Ch.B. (Melb.), 1907.
Oldham, Edward Percy, M.B. & Ch.B. (Melb.), 1907.
Sproule, Viva St. George, M.B. & Ch.B. (Melb.), 1907.
Sweetnam, Herbert William, M.B. & Ch.B. (Melb.), 1907.
Ward, John, M.B. & Ch.B. (Melb.), 1907.
White, Edward Rowden, M.B. & Ch.B. (Melb.), 1907.

Additional Qualifications Registered.
Gill, Joseph James Lloyd, Ch.B. (Melb.), 1907.
Wilson, Norman Leslie Galloway, Ch.B. (Melb.), 1907.

SOUTH AUSTRALIA.

McLeary, Robert Galloway, M.B. (Melb.), 1906.
Marshall, Charles Edward, L.R.C.P. & S. (Edin.), L.F.P. & S. (Glas.), 1902; M.B., Ch.B. (Edin.), 1903.
Evans, John, M.D., B.Ch., B.A.O. (Dubl), 1900, and L.A.H., 1901.
Kidd, Leslie Stuart, M.B. (Melb.), 1905; B.S. (Melb.), 1908.
Kattan, Victor Richard, M.D. (Harvey Coll., Chicago, Illinois), 1907.

TASMANIA.

Campbell, Archibald Brown, M.B. (Melb.), 1903.
Davies, George James Devonsher, L.S.A. (Lond.), 1898.
Davies, John, L.R.C.P. (Edin.), 1898; L.R.C.S. (Edin.), 1898; L.F.P.S. (Glas.), 1898.

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

BENJAFIELD.—March 24th, 1907, at "Elderslie," Crow's Nest, North Sydney, the wife of V. Benjafield, M.B., Ch.M.—a daughter.
CORLIS.—April 8th, at Villa Nova, Ballina, Richmond River, N.S.W., the wife of Dr. C. C. Corlis—a son.
COX.—April 13th, at Lambton, N.S.W., the wife of Dr. F. H. Cox—a son.
DODS.—Saturday, March 23rd, at Wickham-terrace, Brisbane, the wife of J. Espie Dods, M.B.—a daughter.
EAMES.—April 25th, at Myrtle Grove, Elsternwick, Victoria, the wife of Staff-Surgeon Eames, R.N., H.M.S. Donegal, Devonport, England—a daughter.
HEGGATON.—April 13th, at Murrumburrah, N.S.W., to Dr. and Mrs. R. D. Heggaton—a daughter.

McDOUALL.—April 29th, the wife of H. C. McDouall, M.B. C.S., L.R.C.P., D.P.H. (Cam.), medical superintendent Gladesville Hospital, Sydney—a daughter.
REISSMANN.—May 4th, the wife of Dr. Reissmann—a daughter (Adelaide).

MARRIAGES.

CAMM—CARTLEDGE.—April 2nd, at St. John's Church, Darlinghurst Sydney, Carlyle Camm, M.B., B.S., of St. Mary's, N.S.W., elder son of Thomas C. Camm, of Royal Park, Victoria, to Vera Marguerite, youngest daughter of John Cartledge, of Melbourne, Victoria.
CRELLIN—LANCASTER.—On the 11th April, at St. Mark's, Fitzroy, Melbourne, by the Rev. A. Rowed, M.A., Bertram Crellin, M.B. et Ch.B., of Abbotsford, to Nellie, third daughter of John Lancaster, jun., of "Ebbe Brahe," Dorebin-street, Alphington.
DAWSON—BURNARD.—March 23rd, at Beaumont, Dean Dawson to Eulalie Burnard, Laura, S.A.
DEBARVIN—JAMES.—On the 10th April, at Coalbrook Vale, Kapunda, by the Rev. George Griffiths, Walter Eugene Devarin, M.B., Ch.B., sixth son of J. T. Devarin, of Bendigo, Victoria, to Alice Mary, elder daughter of David James, M.P., Ororoo, S. Australia.
MARKS—RHODES.—April 6th, at St. Phillip's Church, Sydney, Alexander H. Marks, M.D., of Wickham-terrace, Brisbane, to Anna G. Rhodes, third daughter of Mrs. Rhodes, Terenure, Dublin, Ireland.
O'BRIEN—HORAN.—May 6th, 1907, at St. Mary's Church, Gympie, by the Rev. F. Horan, Dr. D. P. O'Brien, F.R.C.S.I., of "Avonleigh," Rockhampton, Q., to Elizabeth V., youngest daughter of Mrs. Horan, The Bend, Gympie, Queensland.
JAMES—CLINTON.—March 27th, at the residence of the bride's parents, by the Rev. J. S. Buntine, William Arthur James, M.D., M.S., to Ada Helen, youngest daughter of A. Clinton, Esq., "Balgay," Rippon-street, Ballarat, Victoria.

DEATHS.

AULD.—April 29th, 1907, Mary Webb Auld, widow of the late Dr. Robert Thomas Auld, at her son's residence, 124 Elswick-street, Leichhardt, Sydney.
MACLEAN.—May 2nd, at Seymour, Victoria, Roland Maclean, M.B., late of Kaniva and Narracoorte, South Australia, second son of James Maclean, of Ararat, and beloved husband of May Maclean; aged 35 years.

BOOKS RECEIVED.

The following three books have been received from Messrs. W. B. Saunders & Co., Philadelphia, per Mr. Jas. Little, Melbourne—

1. The Elements of the Science of Nutrition. By Graham Lusk, Ph.D., F.R.C.S. (Edin.), Professor of Physiology at the University and Bellevue Hospital Medical College, New York. An octavo of 326 pages, illustrated. Price, cloth, 8s 6d net.
 2. Textbook on the Pathogenic Bacteria. Fifth edition. By J. McFarland, M.D., Professor of Pathology and Bacteriology, Philadelphia. An octavo of 647 pages, fully illustrated. Price, cloth, 12s 6d net.
 3. A Textbook of Diseases of Women. By J. Clarence Webster, M.D. (Edin.), F.R.C.P.E., F.R.C.S.E., Professor of Obstetrics and Gynecology, Rush Medical College, Chicago. An octavo of 712 pages, fully illustrated. Price, cloth, 80s net.
- The Medical Annual. J. Wright & Co., Bristol. Price, 8s 6d net. No. of pages lxxxvii+863. Illustrated fully with many coloured plates. Sydney: Angus & Robertson.
- Insanity Cured by a New Treatment.** Details of Twenty-one Cases. By C. W. Suckling, M.D. (Lond.) Birmingham: Cornish Bros. Ltd. 1907. Pamphlet of 29 pages and illustration. Price, 2s.
- American Practice of Surgery: A Complete System.** By representative surgeons of the United States and Canada. Joseph DeCATUR Bryant, M.D., and Albert Henry Buck, M.D., Editors. Vols. I and II. To be completed in eight volumes. Price per volume 31s 6d. Volumes to be issued at intervals of three months. Profusely illustrated. New York: William Wood & Co., Sydney: L. Bruck.
- List of the Fellows, Members, Extra-Licentates and Licentates of the Royal College of Physicians of London.**
- Letters on Psychotherapeutics.** By Professor H. Oppenheim, of Berlin University. Translated by Alexander Bruce, M.D., F.R.C.P.E., F.R.C.S.E., Editor of the Review of Neurology and Psychiatry. Edinburgh: Otto Schulze & Co., 20 South Frederick street.
- Metabolism and Practical Medicine.** By Carl von Noorden, Prof. of the First University Medical Clinic, Vienna. Vol I—The Physiology of Metabolism. By Adolf Magnus-Levy, Berlin. Vol. II—The Pathology of Metabolism. By Carl von Noorden, Fr. Kraus, Ad. Schmidt, W. Weintraud, M. Matthes and H. Strauss. English issue under the editorship of I. Walker Hall, Prof. of Pathology, University College, Bristol London: William Heinemann. 1907. In three volumes. Price £2 12s 6d net.

Miners' Phthisis. Reports of an Investigation at Bendigo into the Prevalence, Nature, Causes and Prevention of Miners' Phthisis, and the Ventilation of the Bendigo Mines. By Walter Gummans, M.D., B.S. Melbourne: Stillwell & Co.

Transactions of the Association of American Physicians. Vol. xxi. 1906.

A Textbook of Pathology. By Alfred Stengel, M.D., Prof. of Clinical Medicine, University of Pennsylvania. Fifth edition. Octavo of 977 pages with 399 text-illustrations; many in colours. Philadelphia: W. B. Saunders & Co. Melbourne: Jas. Little. Price, £1.

Chemical Pathology. By H. G. Wells, Ph.D., M.D. Octavo volume of 549 pages. Price, 15s. Philadelphia: W. B. Saunders & Co. Melbourne: Jas. Little.

Manual of Anatomy, Systematic and Practical, including Embryology. By A. M. Buchanan, M.D., C.M., F.R.P.S. (Glasg.). Vol II. Number of pages xv+950, with 362 illustrations. Price, 12s 6d net. London: Baillière, Tindall & Cox. Sydney: L. Bruck.

LETTERS AND OTHER COMMUNICATIONS, RECEIVED FROM CORRESPONDENTS.

Dr. W. K. Bouton, Melbourne; (Dr. John Steel, Ballarat, Victoria; Messrs. H. A. Rose & Co., Sydney; Dr. G. W. Armstrong, Melbourne; the Sec. A.M.P. Society, Melbourne; Emil Groz, M.D., Sec. General of the XVI International Medical Congress, Budapest, Hungary; Dr. G. Hamilton Rowlands Ohma, Auckland, N.Z.; Messrs. H. P. Bell & Co., Sydney; Messrs. Potter & Birks, Sydney; Messrs. Parke, Davis & Co., Sydney; Dr. Alex. Robertson, Gilbert and Ellice Islands; Dr. A. A. Palmer, Sydney; South British Insurance Co., Sydney; Dr. A. H. Gault, Adelaide; Messrs. Beard, Watson & Co., Sydney; Prof. D. A. Welsh, Sydney; the Fresh Food & Ice Co., Ltd., Sydney; Messrs. Coffill & Co., Sydney; Messrs. Burroughs, Wellcome & Co., Sydney; Mr. L. Bruck, Sydney; Mr. G. T. Taylor, Hobart; Dr. Jno. Smith-Guthridge, Murwillumbah, N.S.W.; Dr. Fiaschl, Sydney; Dr. F. P. Sandes, Sydney; Dr. C. H. E. Lawes, Sydney; Dr. A. J. Vause, Sydney; Messrs. Allen and Hanbury, Ltd., Sydney; Dr. Johnston Cameron, L.D.S., Ladismith, Cape Colony; Dr. Rees Llewellyn, Braidwood, N.S.W.; Dr. E. S. Stokes, Sydney; Dr. E. Scott Skirving, Sydney; Dr. Pockley, Sydney; Dr. A. L. Levy, Sydney; Dr. Gordon Craig, Sydney; Dr. F. J. T. Sawkins, Sydney; Dr. W. R. Fox, Melbourne; Dr. A. E. Martin, Perth, W.A.; Dr. Poulton, Adelaide, S.A.; Dr. Fourness Barrington, Sydney; Dr. H. Critchley Hinder, Sydney; Dr. Litchfield, Sydney; The Denver Chemical Manufacturing Co., Sydney; Dr. J. B. Gunson, Adelaide; Dr. A. B. Brockway, Brisbane; Dr. Flaahman, Sydney; Dr. Noel Conolly, Sydney; Mr. D. A. Greenlees, Sydney; Dr. H. Laurie, Melbourne; Dr. A. A. Hamilton, Adelaide; Dr. W. T. Hayward, Adelaide; Mr. Arnes J. McDonnell, Toowoomba, Q.; Prof. Ronald Ross, Liverpool, England; Secretary Ratn Bacteriological Laboratory, 12 Grace Church street, London, E.C.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor." We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valeric Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creosote." The *Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

AUSTRALASIAN MEDICAL GAZETTE

No. 309.

SYDNEY, JUNE 20TH, 1907.

VOL. XXVI., No. 6.

SOME POINTS CONCERNING INSANITY IN EVERY DAY PRACTICE.

By Dr. S. H. R. Montgomery, Medical Superintendent, Lunacy Department, W.A.

It affords me much pleasure to address to-night, for the first time, the members of the British Medical Association of Western Australia, and although, owing to the fact that the buildings are not completed and that the electric light is not yet installed, I am unable to show you our institution as I would desire, I hope at some future time I will have the pleasure of taking you round and explaining to you the why and the wherefore of everything in a modern hospital for the insane.

When you did me the honour of asking me to contribute a paper, I for some time had great difficulty in choosing a subject which would treat of that branch of medicine which I have chosen to practice, and which would at the same time be interesting to you. I finally decided on "Some Points concerning Insanity in Everyday Practice."

When a medical man is called upon to visit a case of mental or probable mental disease, he has to decide several questions, each of which are of great importance. First and foremost, he has to decide as to whether the patient is insane or not, and he must keep in mind the delirium of fever and the delirium of alcoholism. It is needless for me to describe to you the symptoms by means of which he will make his diagnosis, but we will assume that the case is one of insanity proper. This decided, the next question is, "What is the best way to treat the case? Should it be treated at home or should it be sent to a hospital for the insane?" I do not mean that you should take into consideration such things as the wishes of the friends or relations and the social status of the patient, but that you should consider that all cases of insanity are not the same, either as regards symptoms or treatment, any more than all cases of ordinary disease, such as typhoid fever, Bright's disease, etc., are similar; and I will now lay before you some cases which I think should and some which should not be sent straight away to a hospital for the insane.

First.—Cases which, in my opinion, should be treated in such an institution :—(a) Idiots and imbeciles of the age of puberty. However suitable these cases may be for home care before the age of puberty, they are undoubtedly not suitable at or after that period of life. These are cases into which the hope of cure does not enter, and therefore the first consideration for the physician should be that the public be safeguarded, and he must remember that at this period of life the sexual desire is unusually strong in imbeciles and idiots, and the power of control is practically nil, and that if they are not placed where they can be closely watched and their actions controlled, tragedy may happen. (b) Cases in which the patient has delusions of persecution, especially at the commencement of his disease. In passing through a hospital for the insane many patients will be met with who are working quietly, and who suffer from delusions, but at the same time are perfectly safe. The majority of these patients, however, were admitted suffering from ordinary acute mania or melancholia, and their delusions appeared as the disease progressed. The patient I wish to warn you against now is one whose delusions of persecution appear at the start of his disease, and in fact this may be the first symptom which draws attention to the state of his mind. He may have the idea that his friends are trying to poison him or that they are working on him with electricity, etc., etc., and in passing, I may say that one very extraordinary fact we alienists notice is that no sooner is an invention suggested or mentioned in the daily papers than several of these cases appear who are persecuted by means of this new invention. One case, a female cook, who could not read or write, was admitted to the Nottingham City Asylum, when I was connected with that institution, suffering from delusions of persecution by means of the X-rays, a few weeks after this important scientific discovery was first mentioned in the papers.

All cases, then, of persons suffering from delusions of persecution or suspicion, especially when this feature is marked at the commencement of the disease, I consider should be admitted to a hospital for the insane for

two reasons:—(1) They are dangerous to others, and (2) in many cases they are very suicidal. It is easy to understand that a man who believes that someone is trying to kill him (by any means whatever) may attempt to kill that individual, but it is hard to believe that a person who is in terror of his life lest he should be killed, will seek safety in suicide, and yet nevertheless it is so, and such cases as these are most suicidal and most difficult to safeguard against themselves, as their apparent love for life is calculated to throw all but the most experienced in this class of disease off the scent of suicide. One reason why the cases in which the persecutory delusions appear early in the disease are more dangerous than those in which they appear in the chronic stage is that in the latter the whole mental faculties are dulled, and lack of initiative and interest serves as a safeguard, whilst in the acute case the exact opposite obtains, and every thought, emotion and belief is very important to the patient.

(c) Cases who suffer from hallucinations of hearing. The danger to be feared from these cases is that the large majority of them are absolutely under the control of their hallucinations. For many months the "voices" for this is the commonest form—may simply consist of ordinary nameless expressions, and even be a source of comfort to the patient, as when they receive messages of Divine comfort or receive messages from distant friends. But sooner or later this state of affairs is changed by the voices either using insulting expressions to the patient with regard to the patient himself or his friends and relations (when he becomes practically in the same category as those who suffer from delusions of persecution), or the voices may issue commands to commit acts of homicide or of suicide. As one is quite unable to state when these developments may take place, it is needless for me to enlarge on the fact that both for the safety of the public and for that of the patient himself, he should be admitted to a hospital for the insane when he is first discovered to be suffering from hallucinations of hearing. I would like to point out here that hallucinations of all kinds, except in acute alcoholism, betoken a long illness, and that if they persist unchanged for many months they point to an unfavourable termination.

(d) Cases showing suicidal tendencies either with or without delusions. For obvious reasons these cases should be admitted. I

would like here to give you a word of warning with regard to them. It is not the patient who is most extravagant in his or her grief, who says she is tired of life, weeps, wishes to die, and who is continually threatening suicide, who is most likely to commit this act, but the quiet, self-centred, melancholic, who will not speak much about his or her fancied woe and despair, but who sits silently brooding over the trouble. The former cases seem to work off some of their grief and suffering by means of the purely physical expression of it, and I do not think they really suffer anything like the mental pain that the latter cases do, and they are undoubtedly not nearly so suicidal.

(e) Cases suffering from homicidal tendencies.—These cases are practically all included in the section dealing with delusions of persecution and with hallucinations of hearing, and therefore should be sent to an institution for the same reasons.

(f) Patients suffering from general paralysis of the insane.—These are dangerous to themselves and their friends, because of their wanton extravagance owing to their delusions of wealth, because of their insufferance of control on account of their delusions of grandeur, because of their acts of violence owing to their lack of control, on account of their liability to injury due to the fragile nature of their bones, which is an important symptom in this disease, and which constitutes a constant danger on account of the patient attempting feats much above his strength, and last, but not least, because of their sexual greed, sometimes perverted, which in many cases may lead to rape, etc., etc. In fact, especially amongst the lower classes, general paralytic patients have been habitués of the police courts and gaols in the early stages of their disease before it has been recognised. Also in this class the prognosis is hopeless.

(g) Lastly, cases in which the patient refuses food, and has to be fed for any considerable length of time. These are divided into two principal classes, those who suffer from delusions of persecution, such as that their food is poisoned, and those who are suicidal and are trying to starve themselves. The reasons which I have already given with regard to patients with delusions of persecution and to suicidal patients apply in these cases also, but there is a further reason. They will have to be fed by means of a nasal or œsophageal tube, and this should be done regularly at least three times a day. This is

exceedingly inconvenient to the medical man, except in an institution, and it is not safe to leave it to a nurse, otherwise the food will get into the lungs some day instead of into the stomach. In ordinary practice I am afraid that on account of the inconvenience and the practical impossibility of tri-daily visits extending over a long period, the patient will have to be content with one meal a day, consisting of a very large quantity of fluid, and resulting in a largely extended stomach, which sometimes lasts longer than his mental illness. By the way, when feeding by the tube, do not forget to add the pepper and salt, as it undoubtedly helps to create an appetite even from the stomach, and may reduce the period of refusal of food considerably.

I now come to cases in which I think some attempt should be made to treat them at home, or, at least, outside a hospital for the insane for a few weeks at any rate.

1. *Cases of Alcoholic Insanity (Acute).*—

(a) In this section I include both what we call mania a potu, a short transitory illness of very severe type (both mentally and bodily), or in other words an acute mania, sometimes with delusions of extreme violence, delirium and hallucinations, also a high temperature, gastro-enteric symptoms, and which usually ends in a few days one way or the other, viz., in recovery or death; and, secondly, what we call subacute alcoholic mania, which is practically the counterpart of mania a potu, only the symptoms are much less acute, and there is no high temperature or dangerous bodily symptoms.

As I said before, the first class in a few days end in either recovery or death in a very large percentage of cases, and as the treatment is largely towards the alleviation of the bodily symptoms, I consider these cases should never enter a hospital for the insane. The subacute cases, commonly the result of several attacks of mania a potu or of long-continued alcoholic excess. As a rule they get well in a month or so, and go out, and in a short time return as a result of the continuance of their former excesses. It is easy to see then that not only do they bring discredit on the hope of cure of insanity proper wrongfully, but that under the present system there is no chance of cure for them. My opinion is that they should be put on the prohibited list, and if that fails, as it probably will, they should be sent to the hospital for the insane under the section 26 of the Lunacy Act for a period of not less than 12 months,

and that it is absolutely useless as far as permanent cure is concerned to admit them under ordinary conditions.

(b) The second class of case, which I consider should be treated at home or in an ordinary hospital, for some weeks at any rate, if proper conditions, which I will enumerate later on, can be obtained, are cases suffering from puerperal mania or melancholia for the first time. My reasons are purely sentimental. It is useless to preach to the public that insane persons are not criminals. They will agree with you before your face, and behind your back will sneer at anyone who has been so afflicted. Therefore, in these cases, I say avoid sending them to an institution for the treatment of the insane, if you can do so without detriment to your patient. At the same time you must remember that the patient will probably be suicidal or homicidal, that she will be violent, and that most likely she will evince great hatred towards her friends for a time. Therefore, if you make up your mind to treat her at home, you must have competent nurses to watch her day and night; you must absolutely forbid her friends from seeing her even for a moment, and you must have the child removed.

The reasons for my opinion, which I have no doubt will not be considered sufficient by many alienists, are:—1. These cases, like mania a potu, usually recover very quickly (if signs of recovery are delayed from six weeks to two months they should then be sent to a hospital for the insane); and 2nd, it by no means follows because this attack has occurred that at her next confinement the same will happen. 3. It by no means follows that the child will become insane. 4. Taking these facts together, if the necessities for treatment which have been enumerated above can be provided, she will suffer no harm by not being admitted to a hospital for the insane for six or seven weeks, and if she recovers, the stigma of insanity will not be attached to her or to her children, the illness being conveniently designated by the friends as "brain fever" for the benefit of the neighbours. Before leaving this subject I wish to decidedly point out that unless the following conditions—viz. (1st) competent nurses, (2nd) absence of friends or relations, (3rd) removal of the child, and of course proper nourishment—are obtainable the patient should be sent to a hospital for the insane straight away, and that this action should be taken also if the disease shows no marked signs of

improvement in between six weeks to two months.

Certification of the Insane.—The case then has been diagnosed as one of insanity, and the medical man has made up his mind that it should be sent to a hospital for the insane, so the next duty is the certifying of the patient as insane according to law. The signing of a lunacy certificate has, to my knowledge on many occasions, been a very distasteful duty to many medical men on account of the fear that an action at law may be started by the person so signed up when he has been liberated, and indeed such cases have happened more than once, and they are very annoying. In 99 cases out of 100 the medical man has only himself to blame if any trouble to him follows, for if he simply follows out the instructions of the Act, which are simple and straightforward, he is amply safeguarded. Let me quote from the Act:—Section II.—“Every medical practitioner who signs any certificate under or for the purpose of this Act shall specify therein the facts upon which he has framed his opinion that the person to whom such certificate relates is insane, and shall distinguish, in such certificate, facts observed by himself, from facts communicated to him by others. No person shall be received into any hospital for the insane, licensed house, reception house, public hospital or prison under any certificate which purports to be grounded only upon facts communicated by others.” In other words, the doctor must give a certificate upon facts which he has observed himself, and that hearsay evidence is of no value alone, but is permitted as corroboration evidence. The Act then goes on in the next section, No. 12, to enumerate the medical practitioners who, for obvious reasons, are debarred from certifying, viz.: (a) When he has signed the order for admission (which means that men holding the dual positions of Justice of the Peace or Resident Magistrate and medical man cannot act in this case in both capacities); (b) when his relatives, either by birth or marriage, have signed the order or the other medical certificate, and the same applies to his partner or assistant; (c) when the practitioner himself or his father, brother, son, partner or assistant is the superintendent of the hospital for the insane to which it is intended to send the patient, or in case of a private asylum where the same persons or any of them are the regular attendants, or proprietor or part proprietor, or receive a proportion of the pay-

ments to the private hospital. Further regulations are worthy of note, which are not set forth in the body of the Act, but are printed on the certificate itself:—(a) The medical man shall set forth the place of examination, inserting the particulars of the place, such as the name of the street, the number or name of the house. (I may say that this regulation is not carried out in two per cent. of the certificates given.) (b) That he shall examine the patient separately from any other medical practitioner at the time he makes the examination for the purposes of certification. (c) He shall insert the residence of the patient and his profession and occupation in the certificate. (This, again, is only observed in about two per cent. of cases.)

All of these regulations are apparently common sense and plain to everyone; I say apparently, as I will explain later and prove to you that although they seem to be so, they are in some cases evidently not understood, or at any rate not adhered to by the medical men granting the certificates.

Having enumerated the rules governing the certification of the insane, I will now enumerate the penalties attached to breaking them, and I think you will all agree when I have read them that they would be richly deserved.

Section 14.—“If a medical practitioner grants any such certificate without having seen and carefully examined the person to whom it relates, at the time and in the manner specified in such certificate, for the purposes of ascertaining the condition of such person, to the best of his knowledge and power, he shall for every such offence be liable to a penalty not exceeding £50. If any such practitioner wilfully and falsely certifies in writing that any person is insane, believing him not to be insane, the practitioner so certifying is guilty of a misdemeanour.”

Section 186.—“Every person who for the purposes of this Act signs or describes himself in any statement or certificate as a medical practitioner, not being such within the meaning of the Act, shall be liable on summary conviction to a penalty not exceeding £100, or to imprisonment not exceeding six months.”

Having mentioned the penalties, I will now point out to you how perfectly the medical man who adheres to the provisions of the Act is safeguarded. Section 179 sets forth: “No action shall lie against any person for or on account of any act, matter or thing done

by him and purporting to be done for the purpose of carrying out the provisions of this Act, unless it is proved that such act was done or commanded to be done maliciously and without reasonable and probable cause." Also, and this is important: "The Court may at any time after the commencement of such action, order security for costs to be given by the plaintiff and direct all proceedings in the action to be stayed until such order is complied with."

Now, all this seems to be plain sailing. The medical practitioner cannot suffer any harm, or loss, if he signs the certificate having examined the patient for the purpose of certification, apart from any other practitioner; he cannot suffer any harm or loss if he has not signed the certificate maliciously or wilfully, knowing that the patient is not insane, and if he has made his examination to the best of his knowledge and power, and he has only to comply with a few straightforward requests:—(1) He must state the place of examination; (2) he must state the name, residence and occupation of the person certified; (3) he must state the facts observed by himself by reason of which he has formed the opinion that the person certified is insane.

But what do we find? (1) The place of examination is not particularised, but is entered up as Perth, Fremantle, etc. Why not say Western Australia? (2) The profession or occupation of the patient is carefully left out, and his place of residence is stated as Perth, Fremantle, etc. (3) Although it seems hard to believe, the facts observed by the medical man signing are very often not facts at all, but theories, and often are mixed up in an extraordinary way with facts related to him by others.

I had one certificate sent to me, and the facts observed were comprised in the one word "mania," and no facts communicated by others were given. Unfortunately the case was not mania, but general paralysis, so nothing was right. I do not quote this case to jeer, but to point out to you that the Act does not ask for a diagnosis, but for some definite facts indicating insanity, which should be apparent to everyone and which could be thoroughly established in case of legal enquiries. Although not legally necessary, it would be wise that in all cases where facts are communicated by others and added to the certificate that the name, address and occupation of the informant should be added.

This would not take much time and would be a precaution. I may say that this practically is never done.

I will now read you some examples of certificates which I have received. I do not refer to cases like one that occurred about three years ago, where a medical man, also holding the position of Resident Magistrate, sent a female patient to the institution at Fremantle in charge of a policeman, the only papers authorising her detention being a note which ran as follows:—"I have sentenced this woman to the asylum for life. She is not to be allowed out on any account." This, of course, showed hopeless ignorance. Nor do I refer to cases like one where the medical man filled in his own name as the insane person, and carefully left the patient's name out altogether, which showed hopeless carelessness, but I refer to cases where I consider the certificate bad according to law, in that the facts observed are not sufficient to indicate insanity, or do not comply with the spirit of the Act.

The following are some examples of incomplete certificates:—1. Facts indicating insanity observed by myself: "The police and Chinese, with whom she lives, inform me that she raves at night; is at night perfectly stupid and is quite helpless." 2. Facts observed by myself: "General appearance filthy habits." 3. Facts observed by myself: "General melancholic appearance." 4. Facts observed by myself: "Has various delusions." 5. Facts observed by myself: "Unconscious of having been violent." 6. Facts observed by myself: "He tells a long, disconnected story about a stepbrother with whom he had transactions from which he has retired." 7. Facts observed by myself: "Has been in my charge before as a dangerous lunatic. Has lately been excited by drink, and though in conversing with her I find she speaks rationally, I am certain if not confined she will commit murder." 8. Facts observed by myself: "She suffers from sleeplessness, restlessness, and apparently from other signs of insanity which are difficult to ascertain from aboriginals." 9. Facts observed by myself: "Has been under my care suffering from melancholia twice before." These are the complete certificates as regards facts observed.

Before leaving this section of my paper I would like to draw your attention to something which is not required by the Act, but which if supplied by the medical man who

has attended the case would be of great value to the medical officers of the hospital for the insane. It would not be a great trouble to supply, and the supplying of it would be a graceful and courteous act. I mean that you, as the medical attendant of the case, and perhaps of his or her family, must know a great deal of the family history of the patient, of the patient's personal history, and of his former illnesses. These things we, in the institutions, can never hope to find out with anything like the accuracy of the medical attendant outside, as in the large majority of cases my experience is that the friends when they come to see the "mad doctor" forget, to a large extent, truth and many other important things. If, then, the regular medical attendant of the patient who signs one of the certificates would at the same time enclose a note giving some information about the case it would be extremely useful.

Having now made up your mind that the patient is insane, and that he should be admitted to a hospital for the insane, and being prepared to sign a certificate, it may be necessary for you to overcome the prejudices of the relatives against such institutions. I will, therefore, now give you some reasons why, to my mind, the hospital has many advantages over home treatment:—

1. A point which will weigh with the friends is the question of expense. Unless they have practically unlimited means, a large house, large grounds, and able to keep at least two trained nurses, the care of an insane person at home (for any length of time) with a view to recovery is hopeless.

2. Insane patients do much better away from their friends and relations, and this is a very important point. You all know the value of the relative who nurses a case for you with no knowledge of nursing, but with the utmost confidence in her powers and a great love for the patient, and who, therefore, out of pure kindness gives the typhoid case buns and plum pudding, because she cannot find it in her heart to deny anything to the poor, dear sick one. This applies in just as great a degree to the insane. They often need controlling; they do not need continual sympathy and treatment as children; they do not need to have their delusions and fancies made the subject of conversation as if they were true; they must be forced to eat when they refuse food; they must be forced to take exercise even when they believe that they cannot walk. On the other

hand, it is not good for them that their every wish, from the wanting to have a drink of water to a desire to wash their face, should be immediately thwarted from the mistaken idea that everything they desire is wrong and that they must be controlled; or that their delusions or fancies should be laughed and jeered at with the idea of driving them away. Can we hope, then, to strike the happy medium in these matters when friends become mental nurses in a day? I fear not.

3. They must have exercise; otherwise their bodily health will suffer, and with it to a certain extent their chance of recovery. Can we hope for this in the ordinary home? Usually there is no garden of any extent, they cannot exercise in the public road in most cases, and carriage exercise is no exercise at all.

4. They must be closely watched, and at the same time have a lot of freedom. This is absolutely impossible at home. In an institution for the insane, with its large grounds, a very great amount of apparent freedom of action can be allowed, and at the same time the patients are under the watchful eye of the attendants and nurses without this fact being made more obtrusive than necessary. They converse, walk about with other patients, sew, have their little tea-parties, and as long as no violent conduct takes place they are not interfered with. They can work in the fields, in the garden, play cricket, etc., etc., and to all intents and purposes are as free apparently as if they were outside. At home, on the other hand, the presence of the nurse or attendant, for their own special benefit, following them from small room to small room is forced on their attention every moment, and this constant and apparent suspicion and restraint is undoubtedly prejudicial to their recovery.

5. The presence of an insane person in the house upsets it, and has a very ill-effect on the inmates, and especially on children. The insane in many cases are extremely lax in morals and the ordinary observance of decent conduct, and in these cases home treatment is out of the question, unless the home is large enough to enable them to be separated from the remaining members of the family. This is, again, seldom to be recommended, as it usually means that they practically become prisoners in one room from week end to week end, which serves to take away all chance of recovery, and for ordinary humane reasons this cannot be tolerated for a moment.

6. Lastly, strange as it may appear, the chances of ill-usage to insane persons is much less in a well-conducted hospital for the insane than at home. Many cruelties, which are not meant as such, as, for example, unnecessary restraint or the abuse of sedatives, all of which have a harmful effect as regards recovery, are practised to lessen the worry and trouble which a patient must necessarily cause in a private home. Let me quote Claye Shaw's *Ex Cathedra Essays on Insanity*:—"In many cases the patient is better off (namely in an institution) than when treated at home, for he cannot be strapped down or fastened, locked in his room, or otherwise secluded without the compliance with legal and statutory declarations, which ensure publicity; whereas one often sees patients who are privately treated at home fastened down to the bed or chair, secluded, kept from going out, exiled to remote and inconvenient parts of the house, and generally much more isolated and restrained than they would be in a public institution." And again:—"The evolution of the system of treating the insane seems to tend towards doing away as much as possible with any form of restraint, and of making the conditions of institutional detention resemble as nearly as possible nothing more oppressive than the restrictions of the external social system."

I now come to the last section of my paper, namely, the Home Care of the Insane. If, when you have diagnosed the case as insanity and have weighed the *pros* and *cons* of home versus institutional treatment, or perhaps have been persuaded against your better judgment by the friends of the patient, you decide to treat the case at home, for a time at any rate, there are several points which I would press upon your notice.

The case I refer to is an acute case with hope of recovery, for as regards chronic and hopeless cases the only requirement is that the patient should be made as comfortable and happy as possible, and should be prevented from injuring himself or others.

1. At the risk of wearying you I would insist again upon competent nurses having the entire charge of the patient under your direction. 2. I would insist upon the friends not interfering with the case and not seeing him more than once a day, and then only for a few minutes. 3. Arrangements should be made that, should the bodily health permit, the patient has regular daily exercise in the

open air. 4. They must be forced to take abundant nourishment, and in all very acute cases this must be of an easily digestible nature, as practically, without exception, there is some accompanying disorder of the digestive tract. 6. Strict attention should be paid to the bowels, and regular purges or enemas administered as long as there is any suspicion of constipation. Many cases, especially of melancholia, are found to have loaded rectums, even when the friends assure you that the patient has been suffering from diarrhoea for some time past. The diarrhoea in these cases is undoubtedly present, but it is the result of the irritation caused by faecal concretions of long standing, and in no way serves to clear the bowels. In many of these cases the cause of the mental trouble is auto-intoxication, and the removal of the exciting cause is followed by a speedy recovery. 6. Remove all dangerous articles from their reach. 7. Use sedatives and hypnotics very sparingly. The abuse of these is one of the dangers of home treatment, for obvious reasons. If necessary, the safest of all drugs is undoubtedly paraldehyde, and it is my custom to administer it in 2 to 2½ drachm doses combined with a little of the compound tincture of cardamons and water. It is useless giving it in ¼ to 1 drachm doses to sleepless insane patients, and if 2½ drachms are not effective, 1 drachm can be safely given bi-hourly for three or four hours until the desired effect is obtained. If it is used continuously for any time it loses its power, and I would suggest that veronal be substituted occasionally. I would, however, point out again that the continual use of these drugs is harmful, and that if a patient requires a sedative or hypnotic regularly for four or five weeks it is time he was sent to an institution where he can be allowed to shout and rave all day if necessary, without annoying anyone, and so work off some of his superabundant energy, the result in many cases being that when bedtime comes he will sleep without any drug, and soon the daily excitement will cease also.

It has often been said that no progress has been made in the study of insanity of late years, but this I deny. More humane and scientific methods of treatment are now in vogue, and the fact that insanity is a physical disease is now recognised. New methods of treatment, for example, with thyroid and ovarian extract, etc., are being tried, and although they have not so far proved to be

panaceas, at any rate they are steps in the right direction. Leaving out the incurable cases, such as idiots and senile demented, the recovery rates of insanity and the small proportion of relapses are very encouraging, and compare not unfavourably with the recovery rates of general hospitals.

With regard to the belief that cases discharged as cured always return, I wish to state that this is not so. The readmission or relapse percentage in Western Australia for the last six years has been about 7 per cent. of the cases admitted, or about 19 per cent. of those discharged. Do you have a much better percentage of your recoveries from gout, heart disease, pneumonia, or of all your diseases combined? Nevertheless it must be acknowledged that mental medicine has not made the strides of late years that medicine and surgery have. I feel sure, however, that ere long this will not be the case. At the present time eminent scientists are working on this subject, and the brain, the blood, the urine and other adjuncts of the human system are being scientifically studied with regard to their relation to mental disease; and before long I hope no one will be able to quote, with reference to the study of the mind, Omar's immortal verses:

There was a door to which I found no key,
There was a veil past which I could not see.
Myself, when young, did eagerly frequent
Doctor and Saint, and heard great argument
About it and about: but evermore
Came out by the same door as in I went.

(Read before the West Australian Branch of the
British Medical Association.)

PERIPHERAL NEURITIS DUE TO LEAD POISONING IN CHILDREN.

By J. Macdonald Gill, M.D. (Lond.), M.R.C.S.,
L.R.C.P., Sydney.

THE symptoms of lead poisoning in children are in some respects so different from those in adults that I have thought it desirable to bring the notes of three cases before you to-night. The first two cases were under my own care at the Children's Hospital, and the third under the care of my colleague, Dr. Jenkins, who has kindly allowed me to publish the notes of it.

CASE I.—R.H., a boy, aged five years, was admitted on January 26th, 1905, and discharged on March 24th, 1905.

The history was as follows:—Has always been healthy; the present illness has lasted 7 days, with pain and weakness in the back

and limbs; he could not bear to be touched, and lay in bed with his knees propped up. He suffered from severe pain in the abdomen (probably colic) in the early part of the illness, but this passed off before admission. There was no history of lead poisoning at first, but the mother afterwards found out how it occurred. A wall in a lane behind their house was being painted, when he was seen to suck his fingers after getting them covered with paint. About four days after this took place he was taken ill with pains and weakness in the legs.

On admission.—The child looks dull and heavy, but does not cry out much unless touched. The mental condition is good. He lies in bed with his knees drawn up; he has had headaches, but none after admission.

Eyes.—The pupils are equal, and react to light and convergence; there is a weakness of both external recti, but no ptosis. The eyesight is good, and the optic discs are normal.

There is slight facial paresis on the left side, especially of the lower muscles. The tongue is protruded in the middle line. The senses of smell, taste and hearing are apparently normal. Speech is nasal in character and articulation is imperfect: deglutition is unimpaired. The soft palate contracts well when tickled.

Upper limb.—There is partial wrist-drop and inability to extend the fingers. The reflexes cannot be obtained. There is no tenderness on pressure over the posterior interosseous nerve.

Lower limb.—There is almost complete loss of power in the extensor muscles of the thigh and leg, the child lying in bed with the knees flexed, the ankle-joints extended, and the toes flexed. The muscles are wasted and flabby. There is some anæsthesia up to about the middle of the thigh. The knee-jerks are absent; the plantar reflexes are present, of the normal type, but feeble. There is no tenderness on pressure over the muscles themselves; but intense pain is caused by pressure on the great sciatic and popliteal nerves in each leg behind the hip and knee-joints, where they are not covered by muscle. Similarly, when the nerves are put on the stretch, by fully extending the knee-joint or by flexing the hip, with the knee extended, the child screams with pain. Such tenderness is not observed in the arms, owing partly to the deep course of the posterior interosseous nerve and partly to the mildness of the affection there. There is

almost complete loss of control over the bladder and rectum. The muscles of the back are very weak. The abdominal walls are retracted; the diaphragm contracts well. Respiration is easy. The abdominal and cremasteric reflexes are normal. There is no intestinal colic; the bowels act without difficulty. The urine contains a trace of albumen. The teeth are clean and free from tartar; there is no blue line on the gums.

While in the hospital he improved rapidly and continuously. *On discharge*, he could walk well, and had recovered the use of the paralysed muscles, but the knee-jerks were still absent.

CASE II.—A boy, 10 years of age, was admitted on April 3rd and discharged on April 17th, 1905.

History.—The boy was brought to Sydney for treatment from his home on the Macleay River. About three and a half years ago he had a severe febrile attack, with constipation; he then had convulsions for 36 hours; he recovered completely in four weeks. Two years ago he lost the use of all four limbs, and was in bed for six weeks; he gradually recovered till he could run about. Four weeks ago the weakness appeared, in the hands especially. He has been pallid for some months. Their house was painted before the attack, which took place two years ago. The bowels are regular.

On admission.—The boy is small for his age, and intellectually very backward. He is quite childish in his habits. The teeth are very dirty and have a good deal of tartar on them. There is a definite blue line on the gums. There is well-marked foot and wrist-drop; the muscles are not completely paralysed, but are very weak. He can walk with his feet in the position of talipes equinus. The knee-jerks and other reflexes are present. The nervous system is otherwise normal.

Urine.—Sp. gr. 1014; acid; a faint trace of albumen is present.

During his short stay in the hospital he remained as on admission. He was discharged with directions to attend the outdoor department, but did not come again.

CASE III.—A boy, 5½ years of age, was admitted on May 23rd, 1906, and was discharged on July 17th.

History.—The illness commenced about two weeks ago; first by vomiting everything, but with no pain. Then he had pain in the abdomen and weakness in the legs, constipation and headache.

On admission.—There is marked tenderness on pressure over the sciatic and popliteal nerves, also on putting them on the stretch. The knee-jerk is absent on the left side, from old infantile paralysis, but present on the right. There is right foot-drop. There is a blue line on the gums over the molars only, not over the incisors. The urine is of sp. gr. 1015, and contains a heavy cloud of albumen. The boy is very dull and stupid. On the night after admission he had convulsions for three-quarters of an hour, followed by inability to speak.

On June 27th Dr. Gordon MacLeod examined the eyes and reported marked pallor of the discs and attenuation of the retinal arteries.

On discharge it is noted that the paralytic condition has improved, but mentally he is very stupid, and has hardly improved during the last six weeks. It was noted on July 16th that no lead was found in the urine.

Remarks.—In Case I the diagnosis was confirmed by the finding of lead in the urine. Dr. Cooksey, of the Public Analyst's Department, Board of Health, kindly undertook this for me. Distinct traces of lead were found in the urine passed about a fortnight after admission—that is, about a month after the commencement of the illness. In Case II no lead was found in the urine, but this is not surprising, as the boy was suffering from the consequences of an attack which probably took place two years before his admission to the hospital. In Case III the analysis was not undertaken till several weeks after the commencement of the illness. However, I think that once the characteristic symptoms are recognised the diagnosis can be made with certainty from the clinical appearances alone, and apart from the detection of lead in the urine. This is fortunate, as the detection of minute traces of lead can only be made with certainty by a skilled chemist. As to the characteristic symptoms—in the two acute cases the extreme tenderness on pressure over the affected nerves was the most noticeable feature. (The right knee-jerk in Case III was present, showing that the anterior crural nerve was unaffected.) The second point to be noted is that the lower extremity is much more affected than the upper; in fact, in Case III the upper extremity escaped altogether. The third point to note is that the blue line on the gums may be absent if the teeth are clean and free from tartar, as in Case I, whereas in Cases II and III the contrary was the case. For this, it is not enou-

to examine the gums in front, but also at the sides, over the molars, where the blue line may be limited.

The severity of the permanent damage to the brain is shown by the fact that two of the children were weak-minded. In both of these cases the acute stage of the illness was accompanied by severe convulsions. It is not surprising that the extremely sensitive nervous system of the child should be permanently damaged. The other symptoms—the optic atrophy, albuminuria, colic—need not be dwelt on, as they present no unusual features.

As to the manner in which the poison was obtained, the history in Cases I and III was clear. Both these children were seen to suck the paint off their fingers; at the time when they became ill painters were at work at both houses. In Case II a similar origin is probable, but the illness dates too far back to make one sure.

No active treatment is necessary in the acute cases, as recovery takes place rapidly if the patient be put to bed. The treatment in chronic cases is the same as in adults.

I have brought these cases before you because the subject is altogether ignored in the text-books, except Sachs' in his "Nervous Diseases of Children." This author says that the symptoms do not essentially differ from those in adults—a remark which does not apply to these cases at any rate. Drs. Lockhart Gibson and Jefferies Turner, in several papers published in the *A. M. Gazette*, have pointed out the typical symptoms of lead poisoning in children, and have called attention to the frequency of its occurrence in Brisbane. There is no doubt but that it is a rare disease in Sydney.

(Read before the New South Wales Branch of the British Medical Association.)

SOME EXPERIENCES IN INTUBATION AND TRACHEOTOMY.

By J. Kynaston Couch, M.D., M.R.C.S., L.R.C.P.,
Surgeon to the Children's Wards Perth Public
Hospital, W.A., late Senior Assistant
Surgeon Swansea Hospital, Wales.

WHEN asked by our worthy secretary (Dr. Martin) to contribute a paper towards this meeting, the thought occurred to me of giving some of my experiences in intubation and tracheotomy in the hope that they might prove interesting.

First of all, "When is one of these operations needed?" The answer is simple,

quoting from Edmund Owen: "When an insufficient amount of air is entering the lungs." The physical signs of this are:—A sinking in of the suprasternal, supraclavicular and epigastric regions during inspiration, and a rough, harsh, and noisy entrance of air through the larynx. Noisy expiration also furnishes further evidence of serious obstruction. I further maintain, if one is in doubt whether the operation should be performed, operate; do not wait. I can remember losing three cases, for which I blame myself, in giving the children the benefit of the doubt and postponing operating for 12 to 24 hours. When more exhausted the child will be less likely to benefit from the introduction of the tube. With respect to the contraindications of the operation, there really are none. No child is too young; I have operated on one a month old.

It is a bad omen for the success of the contemplated operation if the supraclavicular and epigastric areas do not markedly recede or fall in with inspiration. This shows that the lungs are engorged with blood and that the energetic respiratory effort is failing to produce a partial vacuum. Nevertheless, the surgeon should give the child the benefit of the operation, even if it is evident that the lungs are implicated. In one case of diphtheria and double broncho-pneumonia in a child of three, who really was very ill, I intubated; the child coughed the tube up on the fourth day and recovered. Intubation apparently by the ordinary non-operating medico is looked upon as an extremely difficult and dangerous operation, and one that should only be attempted by the expert, and cases of threatened asphyxia should be relieved by them by an ordinary tracheotomy. The possible dangers of the intubating tube pushing the membrane down in front of it, tearing of the vocal cords, the passage of the tube into the œsophagus, the production of ulceration of the cords and consequent stenosis are ever present in their minds.

Up to the present I have performed the operation about 96 times—that is, not on 96 cases, as I count each time I remove and reintroduce a tube as an operation. I have intubated about 40 cases, mostly cases of diphtheria, and a few cases of œdema from steam, etc. My opinion is, that as far as the ease of the operation is concerned, there is no difficulty in operating on a child of three or four years of age or under, but each year above this age increases the difficulty, until in adult life it really re-

quires great manual dexterity. I prefer Dr. Codd's modification of O'Dwyer's instrument, as the slide in the latter's introducer makes it a more difficult instrument to use.

Some surgeons intubate in the dorsal position, but I prefer the child in the upright position. I should like to lay stress on the following points:—(1) Keep the head perfectly vertical, (2) hold the introducer in the middle line, (3) make several short attempts rather than one prolonged one. I prefer sitting facing my patient to standing in front of him. In order to ascertain if the tube is in the larynx, pull a little on the string which is attached to it, and feel for the arytenoids behind it; if you feel them behind the tube, give the latter a push home; if on the other hand you feel them in front of the tube, you know the tube is in the œsophagus, and the operation has to be done again. The peculiar breathing of the patient also aids one in deciding this point. I never divide the silk, but fasten it on to the patient's left cheek under a piece of plaster. I warn the child not to grind it with its teeth, and I also keep the arms wrapped up in a towel for the first 24 hours, so that it will not inadvertently pull the cord out. Another point: I always put two or three knots in the silk to prevent it coming out of the tube if one side is bitten through. To my mind, one great advantage of intubation over tracheotomy is that permission is more readily obtained to pass a tube through the mouth without any cutting operation. It need not be called an operation. A tracheotomy would probably be refused, as the child was not yet bad enough. It can also be done without chloroform. The majority of intubations that I have done have been in private houses, without skilled assistance. Be very certain that the tube is in the larynx and not in the œsophagus. I can call to mind one case where the tube passed per rectum, through the practitioner cutting the string before he had made quite certain on this point. A few words about the removal of the tube. If the silk has been allowed to remain attached, this is an easy matter. A slight pull on the silk and the tube is removed easily. I well remember in one case of a boy of ten years; it took three of us half an hour to get it out, because the string had been previously divided.

I should like to mention one case, which I believe is almost unique. I prescribed five grains of potass. iodide at three o'clock one afternoon to a man with a squamous syphilide. The dose was repeated at 7 o'clock. I was

sent for at 8 o'clock, and I found the man suffocating. The whole of his body was swollen enormously. I attempted to intubate, and at the first attempt the man fell back apparently dead, but a stab tracheotomy on the floor saved his life, but only to succumb in six months' time at another hospital of the same complaint and also to pot. iodide. I have searched many authorities, but have not come upon a case so acute as this. It was only after the man left the hospital that I came to the conclusion that it was pot. iodide that had caused the œdema. I believe in this case I passed the tube into the œsophagus when I attempted to intubate.

From the results that I have had in intubation, I claim that one can save the majority of cases if an intubating tube is passed as soon as signs of laryngeal obstruction are sufficiently severe to cause indrawing of the supraclavicular and epigastric regions; but if one waits until œdema of the lungs and broncho-pneumonia have set in, the results are not any better than those of tracheotomy.

My experiences have taught me to always have a tracheotomy set handy if one's intubation cases are very ill. In each of the following cases there was extensive broncho-pneumonia as well as the laryngeal obstruction:—1. The father was holding the child up in his arms, and the child's breathing stopped as soon as I introduced the tube. A stab tracheotomy with my pocket scalpel was of no avail. 2. A similar case and the same thing happened. I did a tracheotomy, and the child lived for 24 hours. 3. In this case I had a tracheotomy set ready, and once more the breathing stopped. I was going through the skin when the child gasped, and I did not proceed any further, as the intubation tube was sufficient to save the child's life.

With respect to individual preference between intubation and tracheotomy, I can but give my individual conclusions. In early stages of cases of laryngeal obstruction in children I should intubate, and in bad cases do a tracheotomy.

In cases of excision of the upper jaw and tongue, I have assisted my colleague at the Swansea Hospital (Mr. W. F. Brook) to intubate in many cases by a special intubating tube of his own invention, and then plugged the pharynx. However, for this purpose I prefer Dr. Bond's method of laryngotomy, which was described in the *B.M. Journal* both by Butlin and himself. I have used this method on two occasions with great success. The method is to pinch

up the skin over the crico thyroid membrane between the finger and thumb, transfix the fold, cut out and then perforate the membrane with a pointed scissors with a sharp, quick movement. The tube in tongue and jaw cases can be removed in 24 hours.

A few points about the difficulties of tracheotomy. I will not weary you with such essential points as keeping the head in the middle line, the throat raised up prominently by the neck being extended over a sandbag or bottle, equable retraction, etc. I always make a point of seeing the trachea rings. This very point saved me once from going into the œsophagus in doing a low operation for malignant disease of the larynx. Although I did the operation deliberately, I had calmly pushed the trachea on one side and had come upon the œsophagus before I recognised my mistake. Mishaps usually occur during tracheotomy from too much haste. Undoubtedly in this operation it is a case of more hurry less speed. If in one's hurry some large vein is opened, and time has to be taken up in the stopping of the hæmorrhage, more time would be lost than if you had proceeded calmly and slowly. A very good rule, according to Mr. J. Berry: "However bad a child's breathing may be, it is probable that it has at least another 20 minutes to live," which is sufficiently long to do the operation carefully. So long as breathing continues do not plunge your knife into the trachea until you have stopped all hæmorrhage. Secure all hæmorrhage and then open the trachea. When the trachea is opened do not be in a hurry to insert the tube, but allow the child to breathe through the opening kept patent by the tracheal dilators. Let the patient cough freely and expel as much mucus as possible. Membrane can be expelled more freely through the open wound than through the lumen of a tube.

Fenwick gives the following tip: "Secure the tape by knots, do not tie with a bow, which little fingers can undo. I have had the usual troubles with retained tracheal and intubation tubes. I had one case of sudden death after removing the intubation tube on the fifth day. In this case, which was at a distance of four miles from my house, I intubated in a severe case of diphtheria, and the child did very well. I removed the tube on the fifth day and remained half an hour afterwards, the child being very comfortable and breathing well. Four hours afterwards I had an urgent telephone message to come out at once. When I reached there by motor

the child was dead. The mother informed me that the child had given one gasp and then died. I certainly think it is more difficult to get a child to breathe without an intubation than a tracheotomy tube. A nurse can change the latter unaided, while the former requires a skilled operator.

Important as it is to see that the tracheotomy is performed early in the disease, it is little less important to see that it is subsequently taken out as soon as possible. If left in for four or five days it is often difficult to get the child to breathe without one. There are comparatively few cases in which the tube cannot be removed, at least for a short time, the second day after the operation. It is seldom necessary to retain one longer than four days. I never suture a tracheotomy wound, but allow it to granulate. If it is sutured snugly I am positive one may get surgical emphysema. I saw this happen in a case of a friend of mine, who did the operation perfectly, and the wound looked very nice as the child left the table to succumb in 24 hours to an attack of emphysema. As a dressing I prefer carbolic oil to anything else.

Just a few words about the length of the wound. Of course we have all done emergency operations through very small wounds, but I am sure better work is done with a skin wound of at least two inches in length.

(Read before the West Australian Branch of the British Medical Association.)

FEVER IN PULMONARY TUBERCULOSIS.

By F. G. Griffiths, B.A., M.B., Sydney, lately Acting Hon. Pathologist, Sydney Hospital.

I BRING before you to-night the subject of fever in cases of pulmonary tuberculosis, not because I flatter myself that I can tell you anything new about it, but first, because the subject is one of which, thanks to the kindness of Dr. Wilkinson, I have lately seen a good deal, and over which, consequently, I have carefully pondered, and secondly, because tuberculosis in any of its aspects is a disease of such perennial and universal interest as to warrant frequent discussion.

Tuberculosis is *perennial* in contrast with such ailments as typhoid and scarlet fevers, plague, pneumonia, influenza and diphtheria, which exhibit a seasonal or more or less regularly periodic occurrence. It is *universal* both in its distribution over the globe and in its incidence on the different parts of the

body, so that it is of everyday importance not only to the physician, the hygienist and the general practitioner, but also to the alienist, the oculist, the aurist, the laryngologist, the rhinologist, the rectal surgeon, the dermatologist, the gynaecologist, and the cystologist. No one of these — no matter how closely he may limit himself to the affections of one particular region — can fail to meet cases in his own special practice which are merely local manifestations of a disease whose chief seat is in the lung—a seat which he may readily overlook if he have neglected to maintain his skill in the methods of examination of the chest. So much is this the case that it behoves every specialist who may have any doubt of the soundness of a patient's lungs to call to his assistance some physician who is specially expert in the necessary physical and laboratory methods of examination. Were this regularly done, many a patient would be saved from drifting into a condition in which treatment can be of little avail.

Pulmonary tuberculosis is of two kinds—acute and chronic.

I. *Acute*.—I do not propose now to dilate on the temperature in cases of acute pulmonary tuberculosis, i.e., tuberculous pneumonia lobar or bronchial. Suffice it to say that, just as with the other symptoms, so, too, with the fever there may be nothing to suggest that the case of lobar pneumonia with which one is dealing is really tuberculous in nature; however, if there be repeated chills, if the temperature tend to remit, or if the expected crisis fail to appear, one should suspect that the infection is tuberculous and not pneumococcal. In distinguishing between tuberculous and other forms of broncho-pneumonia, the temperature is of practically no value whatsoever, and the diagnosis is made either by the post-mortem examination or, if the patient recover, by the subsequent course of the disease.

II. *Chronic pulmonary tuberculosis*.—Although chronic pulmonary tuberculosis may be fibroid, ulcerative or most commonly fibro ulcerative, we may take all three forms together and consider the manifestations of fever at two different periods: (1) in the early stage; (2) when the tuberculous process is well developed.

1. *Early stage* of chronic pulmonary tuberculosis. The early stage of chronic pulmonary tuberculosis may be an acute attack. I do not propose to consider this further, but shall confine my attention to the early stage

of cases which begin, as they usually do, insidiously. By the early stage of chronic pulmonary tuberculosis I mean Turban's stadium I, the stage of *closed tuberculosis*. This is characterised anatomically by infiltration, or perhaps consolidation, of a small mass of lung tissue, nearly always at one apex. The lesion is not in direct communication with a bronchus, so that there is no discharge of tubercle bacilli in the sputum. Clinically, the physical signs in the chest are only of the slightest, if indeed there be any at all. It is to be suspected by reason of slight cough or of one or more of such general symptoms as pallor, dyspepsia or loss of appetite, loss of weight, tachycardia, vascular erethism, slight malaise. (Turban, p. 14 ff.) In this stage fever, though by no means constant (Sangman), is often a symptom. It is usually slight, and not found unless specially sought. There may be a rise of 0.5° to 1° F. in the evening, after meals, or after exertion, the rise in the last case persisting for a longer time than does the slight rise normally occurring after exercise. (Penzoldt.) A similar rise of temperature may occur in this early stage if the vitality of the patient be slightly reduced, as for example by the disturbances which usher in menstruation or those which depend upon lactation.

This fever is due to the tuberculous process; it is in fact the result of absorption of tubercular toxins, and is strictly comparable with the fever produced by injections of tuberculin. (Turban, p. 16.) Similar symptoms may result from tuberculosis of the lymph glands about the hilum of the lung. This, however, is so closely allied to tuberculosis of the lung itself that I do not hesitate to include it in my subject.

A slight rise of temperature not accompanied by any serious general disturbance, and detected only if the thermometer be systematically used, is not of course pathognomonic of tuberculosis; it occurs also, for example, in some cases of pelvic effusion. However, when it is found, tuberculosis of the lung should always be suspected and the suspicion confirmed or refuted by careful examination, including, if ordinary methods leave any room for doubt, a tuberculin test. To this insistence on the necessity of recourse to tuberculin in cases of slight fever two objections have been urged—(1) that it is impracticable to test with tuberculin every person who without obvious cause exhibits slight fever or other vague signs of slight ill health; (2) that the test is not reliable. T.

the first I reply that the only possibility of detecting pulmonary tuberculosis in the early stage—the one stage in which there is any certainty of cure—is by testing all persons whose symptoms suggest the disease. Of course it might be impracticable to test them for a number of diseases, if indeed we were fortunate enough to possess tests; but tuberculosis is very many times—I might almost say infinitely—more common than any other disease, and if we exclude it there is comparatively little likelihood of these vague symptoms being those of the early stage of any other dangerous chronic disease. We may in fact say that of all persons suffering from slight fever without readily determinable cause, some are *not* in the early stage of any severe illness, while of those who *are*, the great majority have tuberculosis, usually in the lung.

To the second objection I reply that though it is possible that no reaction may follow the tuberculin test in a case of tuberculosis, yet this failure occurs only in advanced cases where the patient is already absorbing large quantities of tubercular toxins, and so the tuberculin injected makes but a small addition to his dose. In early cases where there is absorption of only a little toxin, the reliability of the tuberculin test is almost absolute. (Turban, p. 36, Moeller.)

As an example of fever in the early stage of pulmonary tuberculosis let me quote the case of a young married woman, a delicate and neurotic patient. After her second confinement she failed to gain strength, becoming at the end of the second week unaccountably thin and pale, and slightly feverish, up to 99.5° F. in the evening. No evidence of pelvic trouble could be found, and cultural examination of the uterine discharge gave negative results. Dr. Wilkinson, whom I consulted, suggested early tuberculosis—the patient had a bad family history—but I was denied permission to apply the tuberculin test. For the next month the pallor and loss of weight and strength increased, without, however, any increase in the degree of fever, and an occasional dry cough appeared with suspicion of diminution of expansion and impairment of resonance at one apex. A tuberculin test was now made with a positive result. During eight months' tuberculin treatment, which was rendered difficult by the patient's insistence on continuing to suckle her baby, the cough ceased and the colour and weight improved, and she is now strong again. She never had any expectoration at any time, and no further symptoms developed.

Fever in the early stage of chronic pulmonary tuberculosis may sometimes be more than slight, and then resembles the tuberculinisation fever of advanced cases to which we now turn.

2. *Later stage of chronic pulmonary tuberculosis.* In the advanced stages—I propose to treat Turban's stadia 2 and 3 together—the question of fever requires very careful consideration. In the first place there may be none at all. Patients with advanced pulmonary tuberculosis, even those with cavities, may be free of fever for months at a time, although their physical signs may be well marked, and their sputum contain tubercle bacilli almost constantly. Not only may there be no rise, but the morning temperature may be subnormal; in fact, this low morning temperature has been described as characteristic of chronic pulmonary tuberculosis in both pyrexial and apyrexial cases. During afebrile periods the tuberculous process is probably inactive—i.e., there is no spread of infiltration to sound lung, no consolidation of infiltrated parts taking place, and little or no colliquation of consolidated portions. To obtain the correct temperature—generally for convenience taken in the mouth—the thermometer should be kept beneath the tongue for eight or ten minutes. No matter whether the instrument be branded 30 seconds or three minutes, a less time is insufficient; frequent opening of the mouth cools it, and it takes an appreciable time after closure for the temperature of the mouth to rise to that of the body generally. The best place no doubt in which to measure the temperature is the rectum, but the inconvenience which this necessitates, especially where patients take their temperatures in public rooms, balconies and gardens, prohibits this method except in special cases.

Absence of fever should never be allowed, as, unfortunately, it too often is, to influence the examiner in excluding tuberculosis from the diagnosis. Even a practitioner who, because a patient complaining of "catarrh of the throat," has no fever, does not worry to examine his chest, should avoid the further error of telling him that he is free from "consumption." One who is too careful to make this mistake may yet be led to exclude fever when examination, repeated morning after morning, discloses no rise of temperature. I said just now that the temperature is generally low in the morning; fever, if present, is usually intermittent, or, at least, remittent, and in the former case taking the temperature

in the morning alone is useless. If the physician have no opportunity of seeing his patient in the afternoon, let him tell the patient to get a thermometer and take his own temperature regularly—at least every four or six hours, except while asleep.

Worst of all the remittent temperature, perhaps 99° to 100° F. in the morning, is sometimes missed. The patient is all unconscious of the fever which has come on him gradually, and the medical man may fail to suspect it. I lately saw a patient who was thin, weak and obviously ill; he told me that he had coughed for 18 months, that he was treated by a doctor in Western Australia, who suspected lung trouble but found none, and who took his temperature always in the morning, without finding any fever. Fifteen months later he consulted another Western Australian doctor, a nose and throat specialist. This man did not take his temperature, nor tell him to take it; did not examine his chest; did not examine his sputum; but told him that he had "nasal catarrh," and advised him to spend three months in the Blue Mountains. He spent three weeks there, and when I saw him his temperature was 102° F. regularly every evening, though I had difficulty in inducing him to believe this; the upper half of each lung was consolidated, and his sputum was copious and laden with tubercle bacilli.

This indifference to fever of patients with chronic pulmonary tuberculosis is very striking; thus they may feel out of sorts, yet they often continue to go about almost as usual in spite of a temperature of 100°, 101°, or even 102° F.

I proceed now to consider the significance of fever in this advanced, *i.e.*, open, chronic pulmonary tuberculosis. Many English books—even the splendid one of Fowler and Godlee—would lead us to suppose that such fever is always due to activity of the tuberculous process. It may be so, but it very often is not.

The causes of fever in cases of chronic pulmonary tuberculosis are five:—(1) Progress of the tuberculous process in the lung and pleura; (2) spread of the tuberculous process to other organs; (3) infection of the diseased portions of the lungs by germs other than tubercle bacilli; (4) the co-existence of some other disease; (5) various therapeutic procedures. In any particular case all five causes must be borne in mind, and the first (progress of pulmonary tuberculosis) should

be diagnosed only after very careful consideration of the other four.

(1) Fever due to the tuberculous process in the lung or pleura (we may take lung and pleura together, as one is rarely affected without the other) may be slight, as in early cases or severe. If severe, it may result from an extensive infection verging on acute tuberculous pneumonia, which may arise in the course of chronic pulmonary tuberculosis, *e.g.*, by inhalation into previously healthy parts of the lung of sputum or, after hæmoptysis, of blood laden with tubercle bacilli.

It is intermittent or at least remittent. As a rule it is lowest in the early morning, rises gradually to a maximum between 2 and 6 p.m., and then falls gradually. Sometimes the type is inverted, *i.e.*, the maximum occurs about 2 a.m., and the minimum in the afternoon. Rigors may occur at irregular intervals, but they are uncommon. Fever due to the tuberculous process *per se* is especially common in the last stages of the disease. In spite of the fever the progress of the disease is not sufficiently rapid in these chronic cases to enable the physician to detect any changes in the physical signs, except after intervals of several weeks or even months.

Example of severe fever due to pure tuberculosis.—A year ago I saw a patient with advanced tuberculosis of the lungs, consolidation of the upper half of one lung, slight infiltration of the upper half of the other, bacillary sputum. She had rigors, about a dozen in all, at irregular intervals, three or four days or longer. Some complication was suspected. However, very careful examination failed to elicit evidence of mixed infection in the lung or of suppuration in any other part of the body; the leucocyte count was generally 8000 to 10,000, and only once higher (14,000); there were no malarial parasites found in the blood. She was treated by rest and mild aperients, inhalations of formalin, fresh air, and by the drug of all others the best for reducing fever in cases of tuberculo-toxæmia, that is, tuberculin. She improved very much in the course of six weeks, and now, after a year's treatment, is in much better health. Tuberculin is the best agent for overcoming fever due to tuberculosis pure and simple. (Turban, p. 41.)

(2) Tuberculous infections of other organs usually produce striking symptoms in addition to the fever, and so the cause of the latter is readily detected. Laryngeal infection

causes hoarseness, dysphagia and pain; intestinal diarrhoea and perhaps colic; otitis pain and discharge; meningitis, headache, delirium and paralysis; cystitis, dysuria, pyuria, etc. Even with advanced disease of other organs, in addition to pulmonary tuberculosis, high fever up to 102° F., or even more, may cause but little disturbance, so that patients still go about apparently not inconvenienced by it. I had one patient who, besides having severe pulmonary lesions, had lost about one-third of his epiglottis by tuberculous ulceration, and whose evening temperature was rarely below 101° F., yet he rode several miles to my rooms on a restive horse.

(3) Mixed infection, *i.e.*, the invasion by other micro-organisms of the parts of the lung already injured by the tubercle bacilli, is the third cause of fever in chronic pulmonary tuberculosis. Probably the majority of fevers occurring in *open* cases, *i.e.*, those in which there is an open passage from the lesion to a bronchus, and so to the external air, are to be ascribed to this cause.

The importance of mixed infection was insisted on by Koch so long ago as 1884 in his work on the *Ætiology of Tuberculosis* (R. Koch. *Die Ätiologie der Tuberculose*. M.a.d.k. *Gesund.* Seit. 33), and again in 1890 in his communication (to the *Deutsche Medicinische Wochenschrift*) on "A Remedy for Tuberculosis" (cited in Prof. A. Stuart's "Report on the Koch Method of Treating Tuberculosis," p. 93). German medical literature contains an immense number of papers on the subject and several books devoted entirely to it. As, however, my knowledge of German is of the scantiest, I have not been able to read any of them. A good account of the subject, readily accessible to English readers, is to be found in Cornet's *Tuberculosis* (American edition, 1904). English textbooks, however, seem to have disregarded it almost completely for years past, and some do so still. Kingston Fowler (Fowler and Godlee) scarcely mentions it; Latham (*Pulmonary Consumption*, 1905) just does mention it in the most casual way. In Clifford Allbutt's huge "System," this neglect is all the more striking. Dr. Percy Kidd, who contributes the article on "Pulmonary Phthisis," vol. v., 1898, mentions such complications as lobar and broncho-pneumonia only to dismiss them, the first as very rare, and the second as really tuberculous. Under the heading of pathological anatomy, he notes

that "pyogenetic" cocci may be found in cavities; he does not, however, attribute to them any of the symptoms of the disease. I could find absolutely no mention of mixed infection, and no consideration of it as an important factor in the disease. Occasionally one finds in English books a vague recognition of mixed infection, *e.g.*, Arthur Foxwell (*Essays in Heart and Lung Disease*, 1895, p. 419) attributes the *septicæmia* sometimes occurring in phthisis to pyogenic germs. It must, however, be comparatively rare for local mixed infection in the lung to give rise to a true bacteræmia. (Janowski, *Central fur Bakt.* 9, xii., 93.) In Australia the rôle of mixed infection has been taught for years by Dr. Wilkinson at the University of Sydney. In America mixed infection has been recognised. Osler, 1898, insists on its importance, and lately some American authors, *e.g.*, Francine, of the Phipps Institute, Philadelphia, going to the other extreme, have described tuberculosis of the lungs as a series of infections by various germs, claiming that most of the lesions, and practically all the symptoms, are due to germs other than tubercle bacilli; this probably contains some exaggeration. It does seem, though, that in pure tuberculosis very little liquefaction of tissue occurs, the process tending to be fibroid rather than pyogenic; while liquefaction of consolidated tissue—perhaps giving rise to hæmoptysis—and extension of the disease to neighbouring parts of the lung are usually the results of secondary infection.

The microbes most frequently found in mixed infections are:—(a) *Staphylococcus*, *albus* and *aureus*; (b) *streptococcus*; (c) *pneumococcus* of Fränkel; (d) *influenza bacillus*. *Staphylococcus albus* is not necessarily harmful. *Micrococcus catarrhalis* may sometimes be the causative germ, and others also have been found, *e.g.*, *bacillus pyocyaneus*, *bacillus coli communis*, *micrococcus tetragenus*, *b. diphtheriæ*, and *b. pseudodiphtheriæ*. A large proportion of these have been found not only in the sputum but also post-mortem in the lung tissue near the tuberculous ulcer. (Cornet, Schröder u. Mennes).

Since writing this I have seen in the *Practitioner* (special influenza number, Jan., 1907), reference to influenzal infections secondary to pulmonary tuberculosis, by Prof. Clifford Allbutt and Dr. Hector Mackenzie.

Mixed infections may sometimes be *transient* only; the germs are found for a day or two and the patient may have a slight rise of temperature, but the infection rapidly passes off without leaving any permanent trace (Turban, p. 23).

Usually they are more severe, lasting for days, weeks or months, and cause general ill-health, with fever and increase of cough. The sputum is commonly more liquid and more copious. These persistent mixed infections are the cause of the hectic fever of chronic tuberculosis, and of amyloid disease. If more severe still the infection may spread in the lung and give rise to a definite pneumonia. On the other hand, it may become *passive*.

Mixed infections constitute perhaps the most striking feature of chronic pulmonary tuberculosis. Often it is the occurrence of one that first leads the patient to consult a physician, or perhaps a surgeon. Unfortunately the underlying condition of tuberculosis is not always recognised. Hence it comes that when ultimately pulmonary tuberculosis is first diagnosed the patient usually gives a history of frequent coughs and colds, which he calls "influenza," and which were in reality a series of infections secondary to a previously existent tuberculosis.

Patients with pulmonary lesions are naturally far more likely to take any chance infection to which they are exposed than are persons with sound lungs; this applies not only to those infections mentioned, but also to measles and whooping-cough, which, though generally supposed to have given the opportunity for tubercular infection, are, according to Turban, a very reliable authority, often the successors and not the antecedents of a pulmonary tuberculosis first discovered only some time after the recovery from the other disease. Turban insists that tubercular infection is not to be ascribed to the weakness left by measles, but rather the susceptibility to measles is to be attributed to a persistent tuberculosis (p. 5).

When the presence of fever suggests mixed infection, the diagnosis is made by finding moist signs in the chest and the noxious germ in the phlegm. Most secondary infections—but not influenza nor measles—give rise to a leucocytosis.

Examination of the sputum in cases of suspected mixed infection. Smears may be stained and searched with the microscope,

but the most important method is that suggested by Koch. First thing in the morning before taking any food the patient should wash his mouth with boiled water and expectorate a piece of sputum coughed straight from the lung into a sterile vessel, which should be at once closed with a sterile lid. Contamination of the specimen in the mouth cannot be avoided; by the suggested method it is, however, reduced to a minimum. A small portion of the interior of a piece of sputum is taken up with a sterile platinum loop, well washed in sterile water, and then, together with a little sterile blood, spread in an even smear over the surface of nutrient agar; the medium is incubated at 37° C. for 24 hours, and then examined for the various microbes. In this way sometimes an almost pure culture of streptococcus, pneumococcus, or influenza bacillus may be obtained.

Prophylaxis. Abundance of fresh air all day and all night: avoidance of persons with "colds," and of ill-ventilated apartments, especially railway trains and meeting halls, where the only air obtainable for respiration is that which has already been sucked in and out of the lungs of many other persons.

Mixed infections are of course not susceptible to treatment by tuberculin; rather their presence contra-indicates its use. They are to be dealt with by means of rest, fresh air, careful dieting and other general measures, together with inhalations of formalin and the administration of quinine and other antipyretics, especially pyramidon. Sometimes a severe and prolonged infection yields to an intravenous injection of collargol. In cases of streptococcal infections, injections of antistreptococcal serum do not seem to have been of striking benefit.

4. The fourth case of fever in chronic pulmonary tuberculosis is the concurrence of some other disease. This is generally readily recognisable. It may be alveolar suppuration in connection with a carious tooth; a non-tubercular abscess (even an ischiorectal abscess may be non-tubercular); ptomaine poisoning. In fact, any one of a great many other diseases may be associated with pulmonary tuberculosis and give rise to fever.

A year ago I saw a very interesting case—that of a medical man who had travelled in the tropics. He had several rigors at irregular intervals, which he insisted were due to tuberculosis alone. He had pulmonary con-

solidation with t.b. in the sputum. He was sure he had never had malaria, and he first noticed the rigors some three or four months after he left the tropics. He had, however, a streptococcus infection of the lung, and in consequence a leucocytosis. Though this secondary infection was overcome by treatment, he did not improve as he might have been expected to do, the rigors continuing, now without leucocytosis, and at suggestive 48-hourly intervals, and to his intense astonishment I found malarial parasites in his red blood cells. After a few doses of quinine—15 grains on each of the first two days of each ten-day period—his rigors ceased. No doubt he had previously had a slight malarial infection and this recurred months after he left the tropics.

Among associated diseases we must not be led to include rheumatism when the sole evidence for it is that of fever with pains in the muscles and joints; these are common from tuberculinisation alone, and sometimes occur in patients who have had no specific treatment, exactly as they do after injections of tuberculin.

With the treatment of associated diseases I cannot, of course, attempt to deal.

5. Various therapeutic procedures may give rise to fever; they require mention only—*e.g.*, catheterisation, intravenous injection of drugs, injections of tuberculin.

I saw one patient who had had several therapeutic injections of tuberculin without reacting; the diagnosis was made by finding tubercle bacilli in the sputum. On being asked one day, "Well, did the last injection have any effect?" he replied, "No; but I've had influenza for two days." He had of course mistaken the reaction for an attack of la grippe.

For many of the statements in these notes—and especially for the comprehension of the most important fact regarding fever in cases of chronic pulmonary tuberculosis, that is, its frequent dependence in mixed infection—I have to thank the teaching of Dr. Camac Wilkinson. To him also are due my thanks for his kindness in giving me opportunities to study so many cases and permission to quote them. For any errors I only am responsible.

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NOTE.—Cornet, Schröder and Blumenfeld (*vide supra sub Moeller*), and Turban all contain extensive bibliographies.

(Read before the New South Wales Branch of the British Medical Association.)

INCONTINENCE OF URINE CURED BY VENTRO-FIXATION OF THE UTERUS.

By William T. Chenhall, M.D., F.R.C.S.E., Sydney.

H.W., aged 49 years; twice married; sterile. Menstruation began at 18, always irregular, scanty and painful; no leucorrhœa; dyspareunia very severe. Menopause two years ago; flushes frequent; headache almost constant, affecting the upper and back parts of the head, and increased by walking or stooping. Complained of constant pain in the left loin, side of abdomen and the lumbar region of the back; a feeling of weight in the suprapubic region, "bearing-down" pressure in the vagina, and a constant compulsion to pass urine every hour or two, both day and night. Constant passing and dribbling of urine made her life miserable. Urination painless; about three ounces of urine passed at each time on rising in morning. Patient fell in the street eight months ago, and since then the pains, dyspareunia and frequent micturition have been more distressing. Is constantly indisposed, irritable, fretful and sleepless, and has lost 20 pounds in weight during the past two years. The urine was normal, and all organs above the pelvis were in a healthy condition. The vaginal outlet was small and the walls healthy, except that the anterior fornix was ill-defined and the wall prolapsed. The uterine cervix was small, firm, with pin-point os, the organ itself being small, acutely anteflexed and prolapsed; walls smooth and regular, and the sound passed with difficulty to the fundus. Great relief was afforded when the uterus was pushed up by the finger in position of the anterior vaginal fornix, where the body of the uterus and the angle of acute flexion were easily felt. The bladder was tender on pressure.

Saline was prescribed, with bromide, strychnine and hyoscyamus, and, three weeks later, the general condition was much

improved; but backache, pressure, frequent micturition and dyspareunia still continued.

Patient being under chloroform, at private hospital, I dilated the uterus fully in order to correct the antelexion as far as possible, curetted, and applied iodine freely to the endometrium. Through a median abdominal incision the uterus, acutely antelexed, was found lying upon the bladder, and was not easily lifted up to the abdominal wall for examination. The Fallopian tubes were healthy, but small, and the ovaries were represented by firm, shrunken bodies, one inch in length and one-fourth of an inch in thickness.

I performed ventro-fixation of the uterus, attaching the organ by its *anterior* wall as far up as possible upon the abdominal wall, passing my sutures of stout, well-boiled silk through the sheath of the rectus, the muscle, sub-peritoneal fascia and peritoneum, and taking a deep grip of the muscular substance of the organ, about three-quarters of an inch below the summit. Another similar suture was passed half an inch above this one. It was impossible to get a grip with sutures further down, owing to the shortened round ligaments of the uterus. These sutures were now clipped with forceps, whilst "all through" sutures of silkworm were passed. The anterior layer of the sheath of the rectus was now closed with fine silk, the peritoneal surface of the uterus in contact with the abdominal wound being first scratched to induce a firm bond of union. The fixation sutures and the "all through" were now tied tightly, and the skin closed with horsehair sutures. The vagina was plugged in order to lessen the strain upon the ligatures fixing the uterus. Patient passed her urine normally on the day following operation, and collected in the bladder eight ounces on the third day and twelve ounces on the sixth day without any distress or pain.

Nutrition has greatly improved and weight increased ten pounds, and patient is now, six weeks after operation, perfectly well.

Where the bladder is perfectly healthy and the uterus freely movable, I believe the above method to be, in competent hands, practically devoid of risk, and the only thoroughly satisfactory method of dealing with the condition.

These notes were prepared five months ago, but not published, and patient, who has been recently seen, has gained 24 pounds in weight since the operation, urination being perfectly normal.

CLINICAL AND PATHOLOGICAL NOTES.

TWO RUPTURED TUBAL PREGNANCIES IN THE SAME PATIENT WITHIN A YEAR.

On May 12th, 1906, I was telegraphed for by Dr. V. McDowall to go to Gatton, 30 miles away, to a case of ruptured tubal gestation. I arrived at 1.30 p.m. to find patient unable to speak, nearly drained of all blood, and with pulse 140. Rupture took place at 10 p.m., and Dr. McDowall saw her in the early hours of the morning. He gave saline injection per rectum and into cellular tissue, and kept her alive until my arrival. I operated at once, turning out a very large quantity of blood clots. I found a rupture of the right tube, and removed the whole, washed out, filled with saline, stitched her up, and put her back to bed.

Patient made an uninterrupted recovery. On March 12th, 1907, she consulted me again. History of sudden pain in left side three weeks ago; a week later a severe pain again, and finally, a week before consulting me, a most severe pain causing collapse. On examination, a large swelling in left broad ligament. On March 14th, section at St. Denis' Private Hospital. About half a pint of loose blood clots in pelvis and a large hæmatoma of the broad ligament. There was a partial rupture of the tube into the folds of the broad ligament and partial into the abdomen. Patient made an uninterrupted recovery.

My apology for publishing this is the extreme rarity of this kind of case.

ÆNEAS J. McDONNELL, M.D.

Toowoomba, Queensland.

TWO POST-MORTEM ABNORMALITIES

THE following cases are interesting as showing the degrees of physical abnormality which may exist for years, and yet cause no untoward symptoms during the life of the individual in whom they are found post-mortem.

Case I.—A man, *æt.* 30, died from exhaustion following on epileptiform convulsions occurring in general paralysis of the insane. The disease had existed for some years, and during the past four months he had been an inmate of the Hospital for the Insane, Callan Park. During the time he was in the hos-

pital, and before he went there as far as could be ascertained, he had had no urinary trouble of any description. During the last week of his life he suffered from retention of urine—a very common occurrence in the last stages of general paralysis. On searching for the kidneys post-mortem they were found occupying the middle line and fused together at their lower margins by an isthmus of kidney substance of an uniform thickness with the rest of the organs. Both ureters came off from the superior and anterior aspect of the kidney, and were normal in size and shape. They turned over the anterior surface of the isthmus on either side of the inferior vena

was 6 oz. References to this abnormality of the kidney in "Gray's Anatomy" and Gould and Pye's "Anomalies and Curiosities of Medicine," state that this is the commonest form of abnormality found.

Case II.—A man, *æt.* 41, died from epileptiform convulsions occurring in the course of delusional mania, from which he had suffered for years. He was a well-nourished man, and had never had any trouble with his bowels, in spite of the fact that he was the possessor of an enormous double inguinal hernia. The hernia was so large that it completely obliterated his penis. On the right side it was partly reducible, on the

left side it was quite irreducible. The left sac was much larger than the right. On opening the abdominal cavity the mouth of each sac was found widely patent, admitting three fingers easily. In the left sac were the cæcum, the appendix, and 3 ft. of the last portion of the ilium. In the right sac the whole of the omentum (which had become rolled up into a pear-shaped mass) and the middle portion of the ascending colon, as well as a small knuckle of small intestine. The intestines had thus become completely twisted on themselves. There was no sign of the slightest obstruction anywhere, although the cæcum and appendix

were firmly bound down by adhesion to the wall of the hernial sac. NOEL A. W. CONOLLY,

M.B.C.S., L.R.C.P.

Labr Assistant Medical Officer N.S.W. Lunacy Department. Drummoyne.

A CASE OF MULTIPLE MYONECTOMY.

ON June 7th, 1906, at Lewisham Hospital, I removed an enlarged inflamed appendix from a young single woman, and found also a definite but localised surrounding tubercular peritonitis. On examining the pelvic organs through the wound the uterus was found to be the seat of many subserous and intramural fibroids. Convalescence from this operation was uneventful. Eight months after—on February 5th, 1907—she again

Left Renal Artery.



Right Ureter. Inferior Vena Cava. Aorta. Left Ureter.

WEIGHT OF WHOLE, 3vi.

cava, which also crossed over the anterior surface. The abdominal aorta passed under the isthmus. The left renal artery came off from the aorta a half-inch higher up than the right, and was considerably longer. On section the kidney substance was found quite normal. The medulla of each kidney was separate, although on each side it extended into the connecting isthmus approaching to within a quarter-inch of that on the other side. The pelvis and calyces were placed on the anterior and upper surfaces of each kidney, and were normal in all respects. The accompanying photograph shows well the appearance of the organs as they were placed in the abdominal cavity. The weight

consulted me, feeling and looking better, but with the information that she had become engaged to be married. She was re-admitted to Lewisham, and I removed through a central abdominal incision five subserous and eleven intramural tumours of almost equal size, averaging that of a walnut. The uterus was then suspended to the anterior abdominal wall, and the patient was up and about three weeks later.

I record this case because of a few practical points. In the first place it was interesting to note the complete clearing up of a tubercular peritonitis after section for removal of the vermiform appendix. Then the girl was engaged to be married shortly, and therefore, though it would have been much easier to do a hysterectomy, the more tedious operation of multiple myomectomy was justifiable; the more so because the condition of salpingitis, so frequently present in cases of long-standing uterine myomata, was absent. With regard to the incisions into the uterus, I think one should be made for each tumour, along a line running from cervix to fundus, avoiding of course the known positions of important uterine vessels. It is better to do this than try to burrow through uterine tissue to another tumour, even though it be quite close. With the fresh incision one can see exactly what one is doing, and through it can repair accurately the damage to the uterine wall.

In this particular case one of the fibroids was situated in the anterior wall of the cervix uteri. In this instance I had to make a horizontal incision through peritoneal reflexion from uterus to bladder, peel the bladder down, and then remove the tumour through a longitudinal cut in the uterine tissue. After carefully sewing up the separate wounds with catgut in layers according to their various depths, the uterus had reassumed an almost normal shape.

FRED. J. T. SAWKINS,

227 Macquarie-street, Sydney

M.B., Ch.M. (Syd.)

FRACTURE OF THE ANTERIOR FOSSÆ OF THE SKULL, INVOLVING THE OPTIC NERVE ALONE.

A MAN aged 41 fell from a building on April 21st, 1907. He was conscious immediately after, but bled very freely from the nose. There was a bruise over the right supra-orbital margin. The pupils were moderately dilated and equal. Great pain was complained of on the left side of the chest. The pulse was of good tension and not rapid.

The breath smelt strongly of alcohol. On removal to the hospital three ribs on the left side were found to be broken, also the first metacarpal bone of the right hand. No fracture or depression of the right frontal bone could be felt. During the night of the 21st about one pint of tarry blood clots was vomited. The bleeding from the nose ceased next day and was not considerable in amount except just after the accident. Large bubbling râles heard in the front of the chest were evidently from blood aspirated into the bronchi. There was no discharge of blood or cerebro-spinal fluid from the ears, nor emphysema. The eyelids of both eyes became extensively ecchymosed, and both ocular and palpebral conjunctivæ filled with blood—more on the right side. The right pupil, on the 22nd, did not react to light and was larger than the left. The nervous system was otherwise normal. The patient at no time lost consciousness. On the 22nd loss of vision in the right eye was complained of, and there was no perception of light. The red reflex was present, but the light reflex absent. There was no paralysis of ocular muscles or ptosis. Ten days after the accident (May 1st) the disc was fluffy at the edges, veins very large, and whitish exudation in the centre of the disc. No hæmorrhages were seen. On May 8th the outer half of the disc was whiter than the inner. On May 20th the light reflex was absent, perception of light still lost, but the consensual reflex present. Both pupils contracted on accommodation. The whole disc was now white, the arteries much smaller, and the edges better defined than in the other disc. There were shooting pains in the sound eye, but no signs of inflammation. The spitting of blood was continued for over a month. Headache was severe at times, especially at night. No other nervous symptoms.

The lesion seems to have involved solely the right optic nerve, and was probably therefore about the optic foramen. The ophthalmic artery would seem to have escaped. A very similar case is described in the *Lancet*, January 21st, 1906, and the subject is also discussed in the annotations of the same number. From the literature it seems uncertain whether the lesion was a hæmorrhage into the optic nerve sheath, or division of the nerve by a splinter of bone from the anterior clinoid process.

H. E. PRIDHAM, M.B. (Syd.)

Geraldton (N.Q.), May 22nd, 1907.

REVIEWS AND NOTICES OF BOOKS.

SKIN DISEASES: THEIR NURSING AND GENERAL MANAGEMENT. By Dr. Norman Meachen. A handbook of 128 pages. London: "The Scientific Press, Ltd.," Southampton-street, Strand. Price, 2s 6d net.

The descriptions of the various disorders contained in this volume are not sufficiently minute to be very suitable for a text-book on diseases of the skin, yet they seem to be too much so for one on the nursing and general management thereof. For example, the portion devoted to "Factors and Diagnosis" might with advantage be considerably curtailed, or perhaps omitted, and same remark applies to the description of "General Principles of Treatment." The information is as a rule fairly correct, yet there is little excuse for the author speaking of heaped-up scales in rupia, and far less in his referring to the acarus scabiei as a "minute insect." The book is printed in clear, readable type, the price is not excessive, and no doubt will prove of service to nurses taking an interest in this branch of medicine.

ESSENTIALS OF THE PRACTICE OF MEDICINE. For students of medicine. By William R. Williams, M.D., formerly Instructor in Medicine and Lecturer in Hygiene, Cornell University; Tutor in Therapeutics, Columbia University (College of Physicians and Surgeons), New York. Philadelphia and London: W. B. Saunders & Company, 1905. Melbourne: James Little. Price, cloth, 7s 6d net.

This small work consists mainly in a compilation of the chief features of the various types of disease. It presents no new facts. The author's aim has been to present the average case as typifying the disease and to lay stress upon the essential points of diagnosis. The work is intended specially for students, and is on the whole accurate and up to date.

THE ELEMENTS OF THE SCIENCE OF NUTRITION. By Graham Lusk, Professor of Physiology, University and Bellevue Hospital Medical College, New York. Philadelphia and London: W. B. Saunders Company, 1906. Melbourne: James Little. 326 pp. Price, 12s 6d net.

This is a book which no modern physician can well afford to leave unread or unstudied. A book of the kind has been long needed, and the reader will agree with the reviewer that in Professor Lusk the right man has been found to produce it. Its aim is to unfold to the student of dietetics and the clinical physician the wonderful and valuable results which have been achieved up to date by the experimental study of metabolism. It is written in a clear, direct, and logical style, and every conclusion is enforced and illustrated by the evidence on which it is based. Of course it is intended for careful reading, but while it is scientific in form and matter, it is as deeply interesting as any novel, and will not be found at all difficult to understand or follow intelligently. Its scope will be indicated by quoting some of the subjects of various chapters. These deal with regulation of temperature, influence of proteid food, influence of ingestion of fat and carbohydrate, influence of mechanical work on metabolism, normal diet, food requirement during growth, metabolism in anæmia, at high altitudes, in myxœdema, in exophthalmic goitre, in diabetes, in phosphorous poisoning, in fever, in gout, and so on. The various chapters are full of suggestions of the

greatest value to the clinical practitioner, and the temptation to quote some of them is great. But probably enough has been said already to induce the reader to get a copy and carefully study it himself. It may be added, as a postscript, that the appendix contains a most useful table showing cost of proteid and energy in various kinds of food material, compiled by Langworthy, and a long and even more useful table showing the composition of several hundred ordinary food materials, compiled by Atwater and Bryant. These tables have been available for years in America, though they have not yet become very well known in other countries.

SURGERY: Its Principles and Practice. By various authors. Edited by William Williams Keene, M.D., LL.D. Vol I, with 260 text illustrations and 17 coloured plates. Philadelphia and London: W. B. Saunders & Company. Melbourne: Jas. Little. Price, cloth, 30s; 5 vols., complete. £7 7s.

This very extensive work will comprise five volumes and over 4000 pages. The author states that his contributors will be selected from among the best American and European surgeons. The first volume, which has reached us, fully bears out the high appreciation which we have for its distinguished editor. It deals with the history of surgery in the opening chapters, giving a short *résumé* of the lives of the best-known surgeons, from Hippocrates to Lister, including several surgeons whose names are perhaps better known to Americans than to Englishmen or Australians. The chapters on surgical pathology, wounds and shock have been entrusted to George W. Crile, whose work in connection with surgical shock is so well known to the surgical world. Da Costa, of Philadelphia, deals very completely with the surgical aspect of tuberculosis. He appears to consider tuberculin to be a very uncertain agent. The articles on chancre and syphilis, by Edward Martin, have their value increased by some extremely well-finished illustrations. This first volume augurs well for the rest of the series, inasmuch as the various articles are as fully dealt with as space will allow. In fact, it may be looked upon as a general surgery in which each article is written by a man who has a special knowledge of the subject upon which he writes. It will thus form, when complete, an encyclopædia which promises to be a faithful mirror of the surgical knowledge of the present day, together with a happily-introduced suggestion of our appreciation of the work of the surgical genius of our forefathers. We can well recommend it as a valuable addition to the surgical library. One might even say that it will prove to be a surgical library in itself.

THE JUSTICES' MANUAL AND POLICE GUIDE. Compiled by Daniel Stephen, Senior Sergeant of Police. Second edition. Sydney: Angus and Robertson. 1906.

The early appearance in so short a time as one year of the second edition of Mr. Senior Sergeant Stephen's book betokens its usefulness. It is primarily intended as a manual of practice for all concerned in the administration of the criminal law in New South Wales, but its acceptability extends to a wider range of readers. As a book of reference for medical men its convenience consists in the fact that it includes matters of concern to medical practitioners. It summarises the law relating to the wrongful assumption of medical titles, and to the status of medical practitioners in regard to inquests. It epitomises the sections of the Children's

Protection Act dealing with the certification of death of adopted children, and of still-births in lying-in homes; the provisions of the Lunacy Act for the certification of persons alleged to be insane; and of the Public Health Act for the compulsory notification of infectious diseases. Medical practitioners who are Justices of the Peace, and avail themselves of the status, will find the book full of information and a guide to be relied upon. The present edition has been brought up to date by the inclusion of recent legislation.

ZUR LEHRE VON DER ZWILLINGSCHWANGERSCHAFT MIT

HETEROPEM SITZ DER FRÜCHTE (A Treatise on Twin-pregnancy with Different Sites of the Embryos). By Dr. Fr. v. Neugebauer. Leipzig: Dr. Werner Klinkhardt. 1907. Price, 6 marks.

This brochure of 168 pages deals fully with 171 recorded cases of concomitant intra-uterine and ectopic gestation, giving details of each individual case collected from the literature of the subject up to 1906, including two cases under the personal observation of the author. The cases are also presented in a tabular form and then fully considered from a statistical point of view as to pregnancy, age of patient, number of previous pregnancies, primary seat of ectopic oöperm, diagnosis, fate of the intra-uterine embryo and of the mother and the treatment. In conclusion, the value is enhanced by a very complete bibliography, and it will serve as the reference book on the subject with which it deals in the most comprehensive manner.

THE SIGMOIDOSCOPE: A CLINICAL HANDBOOK ON THE EXAMINATION OF THE RECTUM AND PELVIC COLON. By P. Lockhart Mummery, B.C. (Cantab.), F.R.C.S. (Eng.). London: Baillière, Tindall and Cox. Sydney: L. Bruck. Crown 8vo. Price, 3s 6d net.

This is a small book dealing in the first place with the history of rectal examination. The author then proceeds to describe the sigmoidoscope of Strauss and his own modification of that instrument. The method of using the sigmoidoscope is very simple and apparent to any person with ordinary intelligence, nor is any special skill required by the practitioner.

The concluding pages are devoted to a few cases illustrative of rectal and sigmoidal disease, and serve to indicate that a sigmoidoscope is a valuable addition to the diagnostician's repertoire of instruments. At the same time it is hardly an instrument for the consulting-room, because some preparation is needed before a satisfactory examination can be carried out.

REPORTS FROM THE PATHOLOGICAL LABORATORY OF THE LUNACY DEPARTMENT, NEW SOUTH WALES. Vol I, part 2. Sydney: W. A. Gullick, Government Printer. Price, 4s 6d.

We welcome this further instalment of reports on the pathological work which is being done in connection with the Lunacy Department of New South Wales under the direction of Dr. J. F. Flashman, Pathologist. Dr. Flashman himself contributes a further report based on microscopical examination of the internal features of the brain of a microcephalic idiot, showing lack of corpus callosum, which is fully illustrated by some excellent photographs. He also records some preliminary results of an investigation on the motor areas in cerebral cortex of the native cat, and an account of the bacteriological investigation of an outbreak of acute dysentery at the Hospital for the Insane at Parramatta. Other contributions comprise a note on Golgi preparations by Dr. C. Quaife, description of an

epidemic of dysentery in the Hospital for the Insane at Parramatta by Dr. Moffitt, and a report on the diet supplied to the inmates of the Hospital for the Insane at Kenmore by Dr. Hogg. The volume concludes with a lengthy report by Dr. Flashman, presented to the Inspector-General for the Insane, on the present position, the aims and objects of pathological research in the field of mental and nervous diseases. By his visits to the various institutions for pathological research in Great Britain and Europe, Dr. Flashman was able to gather much useful information; and we can only say that if the work in the pathological laboratories in connection with the Lunacy Department of New South Wales is prosecuted along the lines laid down in this report, an abundant harvest of results useful in the elucidation of the difficult problems of mental pathology and in the prevention of mental diseases will be surely reaped.

THE TREATMENT OF GONORRHOEA IN THE MALE. By Chas. Leedham-Green, M.B., F.R.C.S. A demy 8vo. of 161 pages with 36 illustrations. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 5s net.

Dr. C. Leedham-Green, of Birmingham, offers his small book on the treatment of gonorrhoea as a general surgeon, not as a specialist. The work, as he states, is a compilation and condensation of our own and foreign papers, and in many ways does credit to its sources. We cannot approve of recommending proprietary medicines. The book contains little that is not familiar to the readers of the ordinary text-books and current medical literature of the day.

ATLAS AND EPITOME OF DENTISTRY. By Gustav Preiswerk, M.D., Ph.D. Edited, with additions, by Geo. W. Warren, M.D. Number of pages, 350, with 44 coloured and 152 text illustrations. Price, 15s. Philadelphia: W. B. Saunders & Co. Melbourne: Jas. Little.

The author claims that this volume is a textbook of dentistry, but as such it leaves very much to be supplied by reference to other textbooks in which the desired information is to be found. The treatment of many conditions is not up to date (as described by the author), and in many instances the latest and most approved methods are not even mentioned. This is particularly noticeable in the chapters dealing with pyorrhoea alveolaris, empyema of the antrum, cleft palate, and fractures of the mandible. The large subject of irregularities and their correction is dealt with in eight pages, mostly illustrations. Many of the terms used are obsolete, and in some cases several different terms are used to describe the same structure. With very few exceptions the authorities and investigators referred to in the book are German; their British and American fellow workers, who have done so much for dentistry, are ignored; no doubt this is merely an oversight on the part of the author. The work of translation from German into English has evidently been a difficult task, for some of the expressions used are certainly quaint. The illustrations, both coloured and plain, are good. The editor says that Dr. Preiswerk "is an exponent of the modern trend of dental thought in Germany, and the book is a fair presentation of dental practice in that country." Perhaps he is right; but this volume does not fulfil the requirements of a textbook of (modern) dentistry as understood by the Anglo-Saxon dentist.

Messrs. Parke, Davis & Co. direct attention to their advertisement on page 12.—[ADVT.]

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH JUNE, 1907.

THE LODGES AND THE WAGE LIMIT.

As our readers will remember, a conference was recently held in Sydney between delegates from the Council of the New South Wales Branch of the British Medical Association and from the Friendly Societies' Association of New South Wales, at the request of the latter body, to discuss the provisions of the new draft agreement which has been approved of by the Council of the New South Wales Branch of the British Medical Association. At that conference all the details were approved, except the provision for the enforcement of a wage limit; but as a result of mutual concession, an agreement was arrived at that in future no one should be allowed to join a lodge for medical benefit whose income exceeded £200 per annum, and in case of member whose income was below that limit on joining, but which subsequently increased, no medical benefit should be allowed if his income exceeded £300 per annum, and that the wage limit was not to be retrospective. The delegates from both sides pledged themselves to do their utmost to have this compromise agreed to by their respective bodies. The New South Wales Branch of the British Medical Association has agreed to this modification of the original proposal, but it would appear that the lodges are not disposed to yield the principle of the wage limit without some resistance.

In the report presented to the recent annual meeting of the Friendly Societies' Association this matter was referred to, and in the discussion which ensued, one member reported to have said that "the societies

should see that they were not taken by surprise by the medical men at some future period. He was strongly opposed to the wage limit, and considered it would have a disastrous effect in the country, where the doctors were masters of the situation!" At the invitation of the Manchester Unity I.O.O.F., Dr. W. H. CRAGO attended their annual conference and explained fully the aims and objects of the British Medical Association. The objection was then taken by some members to the principle of the wage limit, but Dr. CRAGO rightly insisted that this question was one of vital importance.

It is said that the constitution of the Friendly Societies does not at present recognise any wage limit, and that before this provision can be introduced into their contracts for medical attendance, some alterations are necessary. But we think that a calm and dispassionate consideration of the question by the lodges will convince them of the justice of the claim made by the medical men. We do not wish to destroy the lodges or limit their usefulness. We recognise them as beneficent institutions for the encouragement of thrift among the working classes; we recognise further that the retention in their memberships of older members who are familiar with the working of the institutions, and who may be in positions of influence in the community, is of distinct advantage to them; we do not wish to deprive any member of any advantage he may derive from membership, so far as that may be an insurance against financial loss to himself or his family during sickness or at death. But we do think that members who are in such a financial position that they can well afford to pay ordinary medical fees for attendance on themselves or their families should not be entitled to demand the services of the lodge doctor at rates which are quite inadequate for services rendered, and so

perpetuate a system of sweating—a system which they are the first to complain of when it is applied to themselves. We are told, not by one, but by several medical men in the city and country, that some members of the lodges, who are rich enough to buy the doctor out, insist upon medical attendance by the lodge doctor at lodge rates. We are glad to have it on the authority of Mr. G. T. CLARKE that the medical men in the country are masters of the situation, and we hope the country members will take this to heart, and recognise that it is only a matter of their standing firm and shoulder to shoulder and they will succeed in securing this fair and just reform in contract medical practice.

THE RISKS OF MEDICAL PRACTICE.

A CASE which has recently been before the Supreme Court of Western Australia brings vividly before the eyes of the profession the many risks which every practitioner, whether physician, surgeon, or general practitioner, is liable to incur in the daily pursuit of his calling. A young man was suffering from an illness for which his father sought the professional advice of Dr. DAWSON, of Perth. The case being a doubtful one at first, Dr. DAWSON called in his partner, Dr. TRETHOWAN, in consultation, and in the course of a day or two the case was definitely diagnosed as one of typhoid fever, although at first there was some suspicion of it being influenza. Unfortunately, the patient died, and the father thereupon brought an action for alleged negligence in connection with the treatment of his son against Dr. TRETHOWAN. We presume that the ground of such action was the doubt that existed at first as to the exact diagnosis. But we all know the difficulty which may surround the diagnosis of

typhoid fever in the early stages, and there was no evidence to show that the deceased's death was in any way due to the doubt in the early diagnosis. Mr. Justice ROTH said there was not a particle of evidence to show that Dr. TRETHOWAN was either negligent or unskilful in the treatment of his patient, and the jury exonerated both Dr. TRETHOWAN and Dr. DAWSON from all blame. We heartily congratulate our professional brethren in Perth on the complete refutation of such an unfounded charge against their professional skill and attention.

Other cases, however, which do not attain the publicity of the law courts may be none the less irritating and annoying to medical practitioners, and frequently involve them in financial loss and worry.

Unfortunately there will always be men and women who from motives of ill-will or desire for notoriety or monetary gain will seize any opportunity for attempting to blackmail honourable practitioners, and everyone who engages in the practice of medicine needs to be continually on his guard lest he be taken unawares by these pests of society. A case which recently occurred in Sydney illustrates this. A medical practitioner was called to a boy who had broken his forearm. This was set, and every attention paid, with the result that the boy recovered with a very useful arm. The father thanked the medical man for his skill and careful attention. The next item on the programme was the receipt by the medical man of a lawyer's letter threatening him with an action at law unless a substantial sum were paid as damages for unskilful and negligent treatment. Fortunately the evidence in this case is so strong that no jury could possibly return a verdict unfavourable to the doctor. Nevertheless the medical practitioner is called upon to incur legal expenses as well as to suffer unnecessary persecution and annoyance.

These cases illustrate what we have pointed out on previous occasions, that every medical practitioner should in self-defence join one of the Medical Defence Unions. These societies are not established for the purpose of assisting medical men to bring actions against any or every one whom they may imagine to be doing them an injury, but to assist both by financial and moral support, any member who may become involved in an action at law arising out of the practice of his profession.

It is hardly necessary to point out what an immense assistance it is to any medical man who may have the misfortune to be placed in such a position to realise that he has at his back the moral support of his professional colleagues as well as financial assistance to enable him to defray necessary legal expenses. We regret that so many medical men are apparently so indifferent to the risks they run from this source in the conduct of their practices that they do not trouble to join one of these unions.

We would again point the moral from the cases above referred to, and urge every medical practitioner to lose no time in seeking election to the Medical Defence Union in whatever State he may be practising.

THE MONTH.

Legislation against Doctors.

WE are indebted to the editor of the *Chemist and Druggist of Australasia* for a cutting from the N.A.R.D. Notes, the organ of the National Association of Retail Druggists in the United States of America, which tells of some extraordinary proposals at present pending in one of the western States. It shows to what an extent legislative freaks can be carried in that country. The proposed laws are as follows:

1. A law compelling all physicians to give duplicate prescriptions in English so that they can be read by anyone. Also giving in English on prescription, name of trouble for which prescription was given.

2. A law compelling all physicians to give duplicate prescriptions, one for the druggist and one for the patient.

3. A law compelling the county clerk to publish every three months a list of doctors who had deaths occur of patients under their charge, giving number of deaths after each name.

4. A law providing that where a physician prescribes morphine or opium for the cure or relief of a patient, and the patient acquires the habit therefrom, that charges may be brought against said physician, and upon conviction, he shall be sent to the penitentiary.

5. A law prohibiting a physician from charging more than the following scale of prices for calls: Between 7 a.m. and 6 p.m., \$1; between 6 p.m. and 7 a.m., \$1.50.

6. A law providing that should a patient not receive any benefit from a physician's treatment, that the physician cannot collect his bill.

7. A law providing that in case of death of a patient while under the physician's care or treatment, bill for services must be cancelled.

Truly the noble profession of medicine must have sunk very low in the eyes of the legislators of that State if any such proposed enactments can be seriously entertained.

Royal Army Medical Corps.

The Commonwealth Defence Department has received information of the details of the conditions under which medical graduates of the Universities of Australia may receive commissions in the Royal Army Medical Corps. One candidate is to be nominated by the Governor-General each half-year and is expected to arrive in England not later than the middle of January or the middle of July in each year. The nominated candidates will take seniority below the list of successful candidates at the competitive examinations held in London, but they will be allowed to compete for higher places at these examinations, and in such cases will take seniority among the successful candidates, according to the number of marks obtained at this examination, and at the examination held after the course of instruction at the R.A.M. Corps College at Aldershot. It is also announced that the Army Council now insists that candidates shall possess moral and social qualifications of a high standard, and that steps are taken to prevent the entrance of individuals not likely to be in every way a credit to their profession and to the army.

Medical Inspection of School Children in South Australia.

We are glad to note that the Government of South Australia is falling into line with the Governments of some of the other Australian States in recognising the value of healthy children as an asset to the State. The Minister for Education, the Hon. T. Price, speaking at

Unley recently, declared his intention of seeking Parliamentary assistance in his crusade against defective eyesight amongst school children. He wishes to have a doctor appointed to examine the eyesight of every child in the schools. Then a certificate will be given stating if the child's sight is defective, and in what way, and this will secure the necessary attention to the defects discovered. The hearing is also to be tested, and that will incidentally, of course, reveal the presence of adenoids, which we know are also associated with defective development generally. Mr. Price recognises that this procedure will consume money, but, as he says, they want to keep "the best asset the State can have—good healthy children, and thereafter healthy citizens."

"The Lone Hand"

We have received a copy of the "Lone Hand," a new shilling monthly magazine, published by the Sydney *Bulletin* Newspaper Company. The publication is of special interest to the medical profession in that it aims at the exposure of quackery in all forms, and absolutely debars from its pages medical and patent or proprietary medicine advertisements. In this respect it sets an example worthy to be followed by the press generally. The present number is full of interesting material, all essentially Australian. It contains a report and clinical analysis of various "headache powders," which were purchased at different retail chemist establishments in Sydney. These analyses confirm the statement so often made that the general public are largely addicted to self drugging with powerful drugs, especially the coal tar derivatives. We wish this journal every success in the career in which it has started, and we hope its effort to save the public from being the dupes of impudent quacks will be followed by the best results.

Second International Congress of Physiotherapy, Rome, October, 1907.

The second international congress of Physiotherapy is announced to take place at Rome. It is to be under the distinguished patronage of His Majesty the King of Italy, as well as the Ministers of Foreign Affairs and public instructors of that nation, and will last from October 13th to 16th, 1907, inclusive. The discussions will be carried on under three

sections:—(a) Medical electricity, etc.; (b) Kinesitherapy, etc.; (c) Hydrology. The authorities are arranging an exhibition of special apparatus adapted to the above forms of treatment, as well as of plans, photographs, etc., of thermal, hydrotherapeutic, and climate health resorts. Ordinary members must be either graduates in medicine or in science, but in order to make the congress as instructive as possible, the directors or proprietors of thermo, mineral, and climatic health resorts, constructors of apparatus, and others interested practically, are desired to join as associate members. The subscription is 20 francs for full and 15 francs for associate members. Professor Guido Baccelli is president, and the secretary is Professor C. Colombo, No. 1 Via Plinio, Rome. Dr. T. Storie Dixon, 151 Macquarriestreet, Sydney, has been appointed local secretary for Australia, and those desiring further information are desired to communicate with him directly.

A New Medical Society in Melbourne.

A new society, called the Anatomical and Anthropological Society, in connection with the Medical Students' Society of the Melbourne University, was inaugurated on June 5th. A large audience assembled in the Wilson Hall, under the presidency of His Excellency the Lieutenant-Governor, to hear an address by Professor J. T. Wilson, Professor of Anatomy in the University of Sydney, on "Some side lights on animal structure." In commencing his address, Professor Wilson deprecated the widespread and narrow conception of anatomical aim and teaching, and urged the complete equipment of departments of anatomy in all Australian Universities. He then dealt with some of the phases in the evolution of various forms of animal life, and illustrated his remarks by a series of lantern slides, which served to illustrate the remarkable capacity for regeneration possessed by living organisms after mutilation. In conclusion he wished the newly-established anatomical and anthropological society every success in performing a work which had formerly been left to men of learning outside Australia to carry out. Professor Berry also outlined the objects of the new institution, and on the motion of Professor Allen a hearty vote of thanks was accorded Professor Wilson for his highly instructive and entertaining address.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

A MEETING of the Branch was held at the Royal Society's House, Elizabeth-street, Sydney, on May 31st. Present: Dr. B. J. Newmarch (president), in the chair. There were about 50 members present.

Members Elected.—Dr. Langloh Parker Johnston, Sydney; Dr. James Percy Clifford, Randwick; Dr. Archibald Clarke Robinson, Jerilderie; Dr. James Lamrock, Kogarah; Dr. John Alexander Watt, Epping; Dr. Ken. Herring, West Maitland.

Nominated for Membership.—Drs. Bernard Tarlton Stiles, Newtown; T. C. Parkinson, R. P. A. Hospital; H. C. Delohery, Forbes; G. H. Vernon, R. Alexandra Hospital.

Dr. F. G. GRIFFITHS read a paper on "Fever in Cases of Pulmonary Tuberculosis." (See p. 280).

Drs. FLASHMAN, STACY and WILKINSON discussed the paper, and Dr. GRIFFITHS replied.

Dr. W. T. CHENHALL read a paper on "Urticaria—Relation to Gynaecology."

Drs. MILLS, McKAY and CRAGO discussed the paper. Dr. CHENHALL replied.

The other items on the business paper were held over for the next meeting.

Council Meeting.

A MEETING of the Council was held on Tuesday, May 14th, at 8.30 p.m. Present: Dr. Newmarch (President), Drs. Abbott, Brady, Crago, Dick, Jenkins, MacCormick, Maitland, Pockley, Read, Rennie, Todd.

The minutes of the previous meeting were read and confirmed.

The following were elected members of the Branch:—Dr. A. C. Robinson (Jerilderie), Dr. James Lamrock (Kogarah), Dr. J. A. Watt (Epping), Dr. J. P. Clifford (Randwick), Dr. L. P. Johnston (Sydney), Dr. E. Ken Herring (West Maitland).

The Hon. Treasurer's statement was received and accounts passed for payment amounting to £95 16s.

Matters arising from the correspondence and otherwise were dealt with, including:—

Complaint by the medical officers of the Berrima District Hospital *re* inquests held at the hospital, and the reply of the Department of the Attorney-General and Minister for Justice in reference thereto.

Reference to the President by the President of the Parkes District Hospital *re* difficulty arising in connection with the appointment of medical officers. Resolved—That the action of the President and Hon. Secretary be approved.

Advertisements of the Moree and District Provident Medical Association.—Resolved—That the Moree and District Provident Medical Association be declared to be prejudicial to the interests of the medical profession in terms of Article 36 of the Articles of Association. Resolved also that the advertisement of a nurse in Moree be brought to the notice of the Australasian Trained Nurses' Association.

Remuneration of medical witnesses in civil cases, and a request from Dr. Clubbe that steps be taken to secure official consideration of its inadequacy.—Resolved—That a previous resolution of April 8th be rescinded, and that the matter stand over until Dr. Clubbe's return.

The position of Dr. —, of Newtown, as a member of the Association.—A letter from the Hon. Secretary of the Metropolitan Medical Association was read. Resolved—That further consideration of the matter be deferred.

Western Medical Association Annual Meeting.—A letter from the Hon. Secretary of this Association was read, inviting members of the Council to attend.

Medical Legislation in New South Wales.—A letter from the General Secretary urging that steps be taken to secure amendment of the law so as to establish reciprocity between New South Wales and other countries of the same character as that established in English law. Resolved—That a reply be sent, approved by the President and the Hon. Treasurer, advising of the practical rejection of Dr. Arthur's bill of last session, and that it was not proposed to approach the Government until a new Parliament was returned.

Proposed Royal Charter for the British Medical Association.—The report of the sub-committee in reference to the provisions relating to the colonial branches was explained, and the action of the sub-committee approved.

Advertisements in newspapers appearing to be breaches of the Medical Practitioners Acts Further Amendment Act 1900, s. 2 (1) (2).—Resolved—That the advertisements be forwarded to the Attorney-General and Minister for Justice with a view to action being taken under the Act.

A meeting of the Council was held on Tuesday, June 11th, 1907, at 8.30 p.m. Present: Dr. Newmarch (President), Drs. Abbott, Crago, Dick, Hinder, Jenkins, MacCormick, Maitland, Pockley, Read, Rennie, Todd.

An apology for non-attendance by Dr. Brady was received.

The minutes of the previous meeting were read and confirmed.

The Hon. Treasurer's statement was received, and accounts passed for payment amounting to £87 8s 10d.

The following were elected members of the Branch: Dr. G. H. Vernon (Sydney), Dr. T. C. Parkinson, (Sydney), Dr. H. C. M. Delohery (Forbes), Dr. B. T. Stiles (Newtown).

The following matters were dealt with:—

Clinical Meetings.—Regulations for the carrying out of the resolution of the Branch to hold clinical meetings in addition to ordinary meetings of the Branch, drafted by the sub-committee appointed for the purpose, were submitted, amended and approved. It was resolved that clinical evenings for 1907 be fixed for Friday, August 16th, and Friday, November 15th.

Australasian Holy Catholic Guild and its Medical Officers.—The Hon. Secretary reported that this Friendly Society had advertised for the positions of two medical officers; that the Sydney Metropolitan Medical Association had advised its members by circular not to apply except on the terms of the "Form of Agreement with Friendly Societies" until the Council of the Branch had had an opportunity of dealing with the matter; that at the request of the Hon. Secretary of the Sydney Metropolitan Medical Association, the President arranged for a consultation of the executive of the Council and for a conference between the executive and delegates from the Guild on May 29th; that at the conference the executive submitted a proposition for the approval of the Guild, namely—"That the Association will not interfere if two members of the Association are appointed medical officers of the Guild at the remuneration of £300 per annum for two medical officers, provided that it is

agreed between the Guild and the members so appointed that from and after the date of the next annual movable meeting of the Guild to be held in the year 1908 the remuneration of the medical officers shall be 16s per annum per member of the Guild entitled to their services as medical officers, and provided that the agreement is carried out; that this proposition was welcomed by the delegates of the Guild; that the Sydney Metropolitan Medical Association had issued a circular to its members advising them of this proposition; and that the board of management of the Guild had resolved on June 1st that the proposition referred to be accepted and acted upon. Resolved—"That if two members of the Association accept positions as medical officers of the Australasian Holy Catholic Guild at the remuneration—viz., £300 per annum for two medical officers—fixed by the existing rules of the Guild, the Association will not entertain any objection that may be raised against either of them for so doing, provided that it is agreed between the said members and the Guild that from and after the next annual movable meeting of the Guild to be held in the year 1908 the remuneration shall be 16s per annum per member of the Guild entitled to claim their services as medical officers, and provided that the agreement is carried out.

Congratulation to Dr. Rennie.—The following resolution was carried unanimously, on the motion of Dr. Crago—"That the members of the Council desire to tender to Dr. G. E. Rennie their hearty congratulations on the occasion of his election to the Fellowship of the Royal College of Physicians of London, as announced in the *British Medical Journal* of May 4th."

The confidential list was considered and revised. A letter from the Hon. Secretary of the Western Medical Association was read, stating that at the annual meeting of this Association held on June 15th, 1907, at Wellington, it was unanimously resolved to petition the Council to remove the name of a practitioner from the confidential list. Resolved—"That the name of the practitioner be removed from the confidential list at the request of the Western Medical Association."

Complaint by the Medical Officers of the Berrima District Hospital *re* Inquests held at the Hospital.—A further letter from the medical officers was read. Resolved—"That the matter stand over pending the receipt of further information."

A letter was read from Dr. Chisholm Ross, expressing his "grateful thanks for the very kind expression of sympathy placed on record by the Branch."

Conference with Delegates of Friendly Societies' Association *re* "Form of Agreement with Friendly Societies."—Dr. Pockley advised that the Western Medical Association had passed a vote of thanks to the delegates of the Council who had met the members of the Friendly Societies in conference.

A letter from the Hon. Secretary of the Eastern Suburbs Medical Association was read, asking for the consideration by the Council of a ruling given by the chairman at the extraordinary general meeting of the Branch held on May 10th. Resolved—"That the letter be received. Resolved—"That in the opinion of the Council the ruling of the chairman was correct."

Alteration of the name of the British Medical Association.—A letter was read from Dr. Fothergil, Hon. Secretary Wandsworth Division, asking for support of the Branch to a proposition to alter the name of British Medical Association to "British Imperial Medical Association." Resolved—"That a reply be sent to the effect that the Council approved generally of such alteration if it were needed to strengthen the bonds

South Australia.

THE monthly meeting was held at the University at 8 p.m., on May 30th, 1907; Dr. E. W. Morris (President) occupied the chair, and the attendance of members numbered 32, and one visitor also was present.

Living exhibits were shown by Drs. Lendon, Anstey Giles (3), and A. E. Wigg.

Some interesting pathological specimens were supplied by Dr. J. C. Verco and Dr. Hone.

The minutes of the last meeting were signed.

Consideration was then given to the subject of the proposed Royal Charter, and the meeting approved of the details relating to the colonial branches in particular. A formal motion of approval was then carried.

Dr. LENDON, in resuming the discussion adjourned from the previous meeting on papers on "Appendicitis," by Drs. Marten, Giles, and Jay, published in the May issue of the *A. M. Gazette*, said that the close attention with which the papers had been listened to, and the remarks which followed, showed the extreme interest which was felt in the subject under debate. Dr. Marten in his contribution had dealt chiefly with errors in diagnosis; such errors the speaker feared would still occur in the future. He remembered mistaking for appendicitis a case of lead colic; the patient gave his occupation as that of a dairyman, without mentioning that the stress of the times had compelled him to seek employment at some lead smelting works. Some 15 years ago he saw a case in consultation which was considered to be an instance of typhoid fever which was not progressing very favourably; as a matter of fact, there was a history of an appendix catastrophe, an abdomen full of pus, and no sign of enteric. Some few years ago a lady had her ovaries removed; as the pain was not improved, she was then pronounced to be neurasthenic, and sentenced to a course of Weir-Mitchell treatment; later on the appendix was removed and she became a healthy woman. In another case appendicitis had been perhaps rather too definitely affirmed as the ailment; it turned out to be an ovarian cyst with a twisted pedicle. Dr. Marten relies upon "pain with rigidity of the right rectus"; does he mean tenderness, i.e., pain on pressure? Dr. Lendon recalled a case in which a man purposely omitted mentioning the fact that he had been under treatment for this complaint at Broken Hill in order that he might secure an unbiassed opinion; he merely mentioned that he was troubled with pain in the right leg; he meant really the front of the right thigh. Meralgia seemed to be the diagnosis, till he further said that the pain was aggravated when lifting the leg, as in getting into a tram; this suggested compression of the tender appendix by the psoas and put the speaker on the right track. Dr. Anstey Giles and Dr. Jay had given them admirable *résumés* of the conditions which regulated "fulminating" appendicitis and recovery therefrom, and the modern ideas as to treatment, but he thought that Dr. Jay had rather widened the definition of fulminating appendicitis, for many cases of perforation and suppuration could scarcely be ranked as fulminating. But agreed as they all might be that such cases were better operated upon as soon as possible, what about the cases that did get well and did not recur? Many of those present could doubtless quote instances of appendicitis which had not recurred for 10 or 15 years; was it possible that they were really instances of that supposed phantom, typhlitis or perityphlitis? Can we

supposing that they are all instances of appendicitis, how is the "differential" prognosis to be arrived at between the cases that must be dealt with promptly and those that might be watched? He thought that it was a matter chiefly of the personal equation, experience, plus intuition. Certainly neither high temperature nor severe pain were good criteria of danger; on the other hand, mildness of the symptoms was quite compatible with marked lesions; this specimen was dug out with difficulty from a patient whose attacks had been of the mildest description. In three recent operations he had had infection of the deeper layers of the wound, two having healed superficially; in one there had been perforation, and a hernia of the colon ensued; in this case the sloughing was very considerable; was this a common occurrence? In operation upon an abscess, he always felt the appendix alone, and had not yet had occasion to remove it subsequently. On one occasion a post-mortem examination, two years after operation, showed that matters had settled down very comfortably. If during an operation a fœtid odour was noticed, he predicted the passage of feces in a couple of days, with an ultimate rapid recovery.

Dr. J. A. G. HAMILTON said he thought the treatment of appendicitis could be summed up in a few words—make a careful diagnosis, and when made operate without delay. The man who advised or permitted delay in appendicitis took a much greater responsibility on himself than the man who advised early operation. The most serious forms of the disease were the most misleading—i.e., that in which the attack came on with severe pain and perhaps a rise of temperature in a day or two the pain left and the pulse and temperature went down almost to normal, and the patient expressed himself as feeling quite easy, the inexperienced were deceived by those symptoms, but in a great number of these cases the apparent improvement was caused by a rupture of the appendix, and the patient although apparently better was really in a very serious condition. The easily diagnosed cases—those in which there was a large mass to be felt and seen—are comparatively safe; the protecting omentum had come down and shut off the mischief. No doubt in some cases it was very difficult to make a correct diagnosis of appendicitis; but in the majority of cases a careful inquiry into the past history of the case, as well as the history of the present attack, would lead them to decide the matter as to whether the appendix was the cause of the lesion. Frequently they get a history of former attacks of abdominal pain, more or less severe; and in the present attack, although the pain might be situated in various parts of the abdomen, they would generally find that during some time, especially at the onset, the pain had been situated in the right lower quadrant of the abdomen; and, as he said before, once they had satisfied themselves that the appendix was at fault then it was their duty both to their patients and themselves to advise immediate operation. The dictum laid down by Treves a few years ago—that every case of appendicitis should be operated on after the second attack—had, in his opinion, been the cause of many disasters. They all admitted it was absolutely necessary to operate when the appendix had ruptured, or when there was pus in its vicinity. They had no guarantee what any one attack of appendicitis might do. The first or second attack might be a fatal one; and surely it was wiser to remove the appendix, when it could be done so with safety, than allow their patients to take the many risks attending any inflammation of this organ. He

said with safety advisedly. As he said before, once pus was present the operation was a necessity, and was not without serious danger, but the risks of operating in the inflammatory stage, before pus is present, were infinitesimal, in the hands of a skilled abdominal surgeon. A patient might die from sepsis, from bad technique, or from hæmorrhage from faulty ligaturing of adherent omentum, or the blood supply of the omentum; but in competent hands this ought not to happen. It might as well be said they would not remove an aching bicuspid, because in the hands of an incompetent dentist a patient might die from sepsis, hæmorrhage, or the dropping of a tooth into the lung. He felt very strongly on the importance of early operating in appendicitis, as he had seen so many disasters from waiting. He came to this conclusion as far back as 1896. Since then he had only had one death out of a great number of operations. The case he lost was one of those misleading cases which come on with sudden severity, followed in two days by a sudden cessation of pain, and apparently a general improvement in all the symptoms. When he saw him on the fifth day after the onset he expressed himself as feeling well. Temperature 99.2°, pulse 80, abdomen very slightly distended, no pain except on very hard pressure deep down in the north-easterly aspect of the right lower quadrant. On opening the abdomen an immense gangrenous appendix was found lying in a pocket of stinking pus. He died two days after from acute septic peritonitis. He thought he might reasonably assume that his experience justified early operative interference. No doubt many cases of appendicitis get better without surgical interference. On the other hand, many cases were lost through procrastination. Surely it was better for them to advise outpatients to accept the infinitesimal risk of an early operation and make sure of matters than to wait until the volcano bursts, which might or might not occur at any time. All the prominent abdominal surgeons of the present day advise early operation in appendicitis; and if men of vast experience like Howard Kelly, Murphy, Ballance and others have learnt from experience that it was the best thing to do, surely it was good enough for small fry like them to follow their lead, even if they follow blindly. On every discussion on appendicitis they saw the old statement trotted out that a large percentage of appendices had been found healthy after removal; but who was to say that any appendix was—at any rate, macroscopically—healthy? He had on many occasions operated on patients who presented the classical symptoms of appendicitis, but on operation the appendix presented no symptoms of disease to the naked eye, but there was no return of the symptoms and the patients were cured. So they might reasonably conclude there was some disease of the appendix, although it was not apparent to the naked eye. He always made a point of examining the appendix in every case when he opens the abdomen for other lesions unconnected with the appendix, and when this organ seemed to be in the slightest degree different from normal, and the condition of the patient seemed to warrant the procedure, he had been in the habit of removing it, and he had never had any reason to regret it. In pelvic surgery, in particular, it was of great importance to examine the appendix, considering how near the appendix was to the pelvic organs and how often it was affected by the same causes which affect them, such as peritonitis, constipation, poor circulation, etc., and remembering that an infected appendix might dip into the pelvis and infect an inflamed Fallopian tube, or *vice versa*. He was

sure that many cases of supposed pelvic disease were operated on, and the appendix, which is the real cause of the trouble, was left untouched, and perhaps not even examined. Some operators made a point of removing the appendix in every case where they open the abdomen. Drs. Marten and Hayward strongly condemned this, and said they might as well remove a healthy spleen, kidney, or ovary, in case they may become diseased, as a healthy appendix. In the first place, he would ask who was going to prove that any appendix was macroscopically healthy? and in the second place, he would ask these gentlemen if they would seriously compare a functionally active organ like a spleen, kidney, or ovary, with the appendix, which had no known function. Some writers had tried to prove that the appendix was a useful and necessary organ, but he did not think many had found their arguments convincing, and the fact that many thousands have been removed without any apparent interference with the human economy was in itself, he thought, a sufficient proof that the appendix was an organ without any function necessary to the human frame, whilst they all knew the spleen, kidney, and ovary had very important functions, and their removal was often attended by serious symptoms, both immediate and remote; so that, with all due regard to conservatism, he felt convinced that in all cases where the abdomen was opened for other lesions the appendix should be suspected, examined, and, if found guilty, removed. To leave an adherent appendix or one containing faecal concretions was, in his opinion, bad surgery. Statistics comparing the medical and surgical treatment of appendicitis were absolutely useless and misleading, as lesions of that organ took so many different forms. A slight catarrhal attack might get well under medical treatment, and might never recur or might return in a more virulent form necessitating surgical interference, whilst on the other hand, suppurating cases required surgical treatment as their only chance of recovery—a chance which was very often considerably lessened by the medical or expectant treatment being continued too long.

Drs. G. Magarey, Wigg, J. C. Verco, Cudmore, Brummitt, Morgan, Scott and others also spoke. At the close the authors of papers replied.

Western Australia.

THE May meeting of the Western Australian Branch was held on the 22nd at the Claremont Hospital for the Insane; the President (Dr. Trethowan) was in the chair, and there were 25 members present and two visitors.

After routine business was transacted, a paper was read by Dr. MONTGOMERY, the superintendent of the hospital, on "Some Points concerning Insanity in Everyday Practice." (See p. 269.)

A short discussion ensued, after which Dr. BLACKALL showed a series of cases of general paralysis of the insane, the series being a most interesting and instructive one, as exhibiting the disease in different stages, from early cases to cases near the final stage.

Dr. BLACKALL also showed a right upper maxilla, removed from an inmate of the asylum about a week previous, for malignant epulis. Preliminary tracheotomy was done, and the patient is undergoing an uneventful recovery.

Four new members were elected.

Ballarat.

THE ordinary quarterly meeting was held at Lester's Hotel on April 25th. Dr. Wm. Morrison (president) occupied the chair. Sixteen members were present, and five apologies were received.

The minutes of the last meeting were read and confirmed.

Accounts amounting to £6 8s were passed for payment.

Dr. CHAMPION moved and Dr. MITCHELL seconded—"That a copy of the last balance-sheet be sent to the hon. secretary of the Victorian Branch, B.M.A." Carried.

Dr. H. Pern was nominated a member of the Branch and the Association.

Dr. ROBERT SCOTT read a paper on "Sarcomata."

In the discussion which followed, Dr. MITCHELL mentioned a case of fracture, associated with sarcomatous growth, in which the swelling at first was regarded as due wholly to oedema.

Dr. MORRISON said that he had got effects from glycoheroin in relieving pain in these cases, after large doses of morphia had apparently failed.

Dr. J. STEELL read "Notes on a case of Urethral Calculus."

The following specimens were exhibited:—1. Sarcoma of the femur (Dr. R. Scott). 2. Fibro-myoma of the uterus (Dr. R. Scott). 3. Vesical calculus, weighing 170 grs., removed from a child aged 1 year and 11 months (Dr. R. Scott). 4. Aneurism of the aorta (Dr. Champion). 5. Large ovarian cyst (Dr. Mitchell). 6. Urethral calculus (Dr. J. Steell).

The meeting then terminated.

REPORTS OF OTHER SOCIETIES.

Western Medical Association.

THE annual meeting of the above Society was held at Wellington on June 5th, 1907. Proceedings commenced at 10 a.m. Members present were Drs. Brooke-Moore, Graham, Machattie, Cribb, Wilson, Busby, Purchas, Lees, Daish, Rygate, Sturges and Linton. Drs. Bowker, Sinclair Gillies and Maitland, from Sydney, were present as guests of the Association. Apologies were received from Drs. Hurst, Watt and Freyer. The President in welcoming members referred to the presence of the visitors in warm terms of appreciation and thanks, anticipating both pleasure and instruction from their visit to the Association. The minutes of the last meeting in Orange having been published in the transactions previously, were taken as read, and the election of officers for the ensuing year was proceeded with. Dr. Graham, vice-president, was unanimously elected president, and was conducted to the chair by the retiring president, Dr. Brooke-Moore; Dr. Howse, vice-president; Council, Drs. Machattie, Wilson, Sturges and Daish; auditors, Drs. Wilson and Watson. Dr. Wilson resigned his position as acting-treasurer, and Dr. Cribb was again re-elected as hon. secretary and treasurer.

The CHAIRMAN then called on Dr. Steer Bowker, senior surgical staff of the Sydney Hospital, to read his paper on "Cancer of the Stomach." This able and exhaustive paper, which was illustrated by numerous original diagrams and drawings, was discussed at length by Drs. Maitland, Sturges, Gillies, Machattie, Cribb, Brooke-Moore and Graham.

Dr. MAITLAND, also of the Sydney Hospital surgical staff, followed with a highly technical and instructive

paper on "The Value of the Cystoscope in the Diagnosis of Obscure Renal Disease." It was illustrated by photographs taken of models prepared by the author.

The meeting then adjourned till 2 p.m., when the discussion of this paper was resumed by Drs. Mac-hattie, Bowker and Sturges.

Dr. SINCLAIR GILLIES, assistant physician to the Royal Prince Alfred Hospital, then read a most practical and suggestive paper on "The Diagnosis and Treatment of Enteric Fever," which was discussed at length by nearly every member present.

Dr. BROOKE-MOORE read notes of several cases of hydatid of the lung operated upon by him. These were discussed by Drs. Gillies, Bowker and Maitland.

The case of a doctor whose name is on the confidential list of the B.M.A., and who has lately come to reside and practice in the Western Districts, was brought up with a recommendation from the Council of the W.M.A. to the meeting to this effect—"That the case be placed before the next general meeting of the W.M.A. with a recommendation that the Association petition the Council of the B.M.A. to expunge the name from the black list for purpose of local consultations, on receiving an assurance from the person in question that all regulations of the W.M.A. would be complied with." The matter was the subject of an animated discussion, and it was finally resolved that the Association should petition the Council of the B.M.A., simply asking them to remove the name from the list.

The HON. SECRETARY, seconded by Dr. BROOKE-MOORE, then moved that a hearty vote of thanks be accorded by the meeting to Dr. Antill Pockley and the delegates associated with him in the Friendly Society conference on the model agreement of the B.M.A. for their great services to the profession in securing at last from the delegates of those societies a recognition of the wage limit principle in all future dealings with the medical profession. The Hon. Secretary, in moving the resolution, which was carried by acclamation, said that Dr. Pockley had earned the gratitude of every medical man in the State who had any dealings with Friendly Societies. From all accounts he had a hard battle to fight, and he had won a splendid victory. He trusted that the Friendly Societies would be wise enough to follow the recommendations of their representatives, and thus ensure peace in the future. By refusing to do so they would inevitably precipitate a great conflict, carrying misery and loss to all concerned.

This finished the business of the meeting.

The official banquet was held at 5.30 p.m., when 16 members and visitors sat down to a splendid dinner provided at the instance of the local committee.

The health of the visitors was proposed in eloquent terms by Dr. MACHATTIE, and suitably acknowledged by them.

Dr. SINCLAIR GILLIES in responding said he hoped the day would soon come when the W.M.A. would become the Western Districts Branch of the N.S.W. Branch of the B.M.A.

Dr. STEER BOWKER commented on the vitality of the Association, which numbered over 50 members, and on the enthusiasm which prompted men to come so many miles to the meetings. Referring to the hospitality shown them, he suggested that the W.M.A. should hold a meeting in Sydney to give the various Sydney guests an opportunity of returning the generous hospitality of their country colleagues.

The proceedings terminated at 7.15 to allow of members catching the mail train to Sydney.

Royal Alexandra Hospital for Children.

A CLINICAL meeting was held at Valentine-lane, Sydney, on May 24th. Dr. Gill presided.

Dr. LIGHTOLLER showed a girl aged 13 months suffering from a bromide rash. The face, chest and limbs were spotted with acneiform pustules, while on the legs there were two or three examples of the confluent type of acne. The child had taken 7½ gr. doses of bromides for one week when the rash came out. The rash had lasted three weeks.

Dr. LITTLEJOHN showed a boy aged 5 months suffering from an ichthyotic patch on the left leg and foot of congenital origin.

Dr. HIPSLEY showed a girl aged 5 years who exhibited a curious malformation of the spine of the second cervical vertebra.

Dr. REID showed a boy aged 2½ suffering from tubercular glands in the neck and what appeared to be a ganglion on the dorsum of one foot. The point of interest was whether the ganglion was of tubercular origin.

The Treasurer in Account with the New South Wales Benevolent Fund.

Dr. 1907.	£	s.	d.
Balance brought forward March, 1906 ..	64	11	0
Subscriptions received from 31st March, 1906, to 31st March, 1907 ..	13	2	6
Cheque drawn but not presented at bank for payment for moneys paid out by Dr. Maitland, as per other side ..	8	0	0
	£85	13	6

Cr. 1907.	£	s.	d.
Money disbursed to deserving cases, as decided by the Committee, from 31st March, 1906, to 31st March, 1907 ..	8	0	0
Bank fees ..	0	10	0
Exchange ..	0	1	0
Cash in hand ..	1	1	0
Balance as per pass-book ..	76	1	6
	£85	13	6

1907.	£	s.	d.
At deposit in Savings Bank of New South Wales, as per pass-book, with accrued interest to 31st December, 1906 ..	141	3	2
Balance at credit at current account in the Commercial Banking Company of Sydney, Bathurst-street Branch ..	76	1	6
Cash in hand ..	1	1	0
Total credit at this date ..	£218	5	8

E. & O. E.

Audited and found correct.

CYRIL E. CORLETTE.

R. L. FAITHFULL,
Hon. Treasurer.

N.S.W. Benevolent Fund.—The following additional subscriptions have been received:—Drs. E. S. Littlejohn, P. T. Thane, A. E. Mills, P. Moore Wood, W. E. Harris (Armidale), Gordon Craig, John Kerr, R. E. Grigson, C. D. Halcomb, W. Barkas, W. M. Helsham, F. H. Wrigley, Arthur Palmer, T. Frizell, J. T. Wilson.—H. L. MAITLAND, Hon. Sec.

REVIEW OF CURRENT MEDICAL LITERATURE.

MEDICINE.

The Blood Pressure in Arteriosclerosis and Bright's Disease.

Elliott (*Journal of the Amer. Med. Assoc.*, April 13, 1907) remarks that, in common with other physical processes, such as body temperature, respiration, urine excretion, etc., which are influenced by many conditions of everyday life, the degree of blood pressure is affected by a great variety of circumstances, producing wide fluctuations specially in the direction of increase, so that it is almost impossible to speak of normal values for blood pressure. But the author considers that the normal average limits of blood pressure to be from 105 m.m. to 140 m.m. Any pre-existent elevation above the latter figure may be interpreted as constituting hypertension. Essential hypertension if once permanently established leads to structural changes in the heart wall and degenerative defects in the arteries themselves. The author then records two series of observations. The first series embraces observations made on 30 cases of arteriosclerosis. These all sought relief from some functional or organic manifestation of the disease. The average age of the patients was 61 years, and the average maximum systolic pressure was 148 m.m. In 14 cases the blood pressure fell within the normal range; 16 cases showed a blood pressure persistently above the normal limit; only 6 showed a positive hypertension. One point of interest brought out by the investigation is the comparatively large percentage of cases (47 per cent.) of arteriosclerosis in which the blood pressure was below 140 m.m., a normal limit which can certainly not be called excessive for a group of individuals averaging 61 years. Thickening and hardening of the superficial arteries does not contribute sufficient cause for development of high blood pressure, and because the radial, temporal and other palpable arteries are sclerosed it must not be inferred that high tension necessarily exists. It is clear that some underlying factor not accessible to our present methods of investigation must be responsible for the occurrence of high blood pressure in arteriosclerosis. Hasenfeld and Hirsch suggest that it is only when the vessels of the splanchnic area or the aorta above the diaphragm are diseased that high blood pressure and cardiac hypertrophy develop in arteriosclerosis. Degeneration of the peripheral vessels alone does not appear to exert this influence. In this connection the author remarks that the six cases of positive hypertension in his series (170 m.m. or over) yielded the physical signs of atheroma of the aorta. There exists no absolute clinical indication for identifying cases of splanchnic sclerosis, but Fraenkel and Hasenfeld have pointed out that corpulent persons of sedentary habits are specially prone to development of sclerosis of the abdominal vessels; yet it is manifestly impossible to establish competency and physical indolence as reliable criteria of the local distribution of retrograde vascular changes. When the aorta above the diaphragm is seriously involved an alteration in the basic systolic heart sound, and a clanging reverberant second sound will be revealed on auscultation. The author suggests that those rare and puzzling cases of cardio-vascular disease with hypertension without commensurate involvement of the kidneys that come under observation may prove to be instances of splanchnic arteriosclerosis. The second series of observations were on 60 cases of Bright's disease. Of these 34 were male

and 26 females. The average age was 51 years; average weight, 160 lb.; average maximum systolic blood pressure, 190 m.m.; average minimum systolic blood pressure, 165 m.m.; maximum systolic blood pressure recorded in any case, 285 m.m.; minimum systolic blood pressure recorded in any case, 110 m.m. The high average pressure in this series contrasts strongly with the average in the preceding series of cases of arteriosclerosis. This proves the almost essential position which renal disease occupies in the causation and maintenance of morbid hypertension. Observations were also made on the relation between the high blood pressure and albuminuria:—1. The number of cases without demonstrable albuminuria was 8; average maximum systolic pressure in these cases, 200 m.m. 2. The number of cases in which the albuminuria amounted to a trace only—too minute for volumetric analysis—was 29. The average maximum systolic pressure in these cases was 180 m.m. 3. The number of cases in which albumen was present in the urine in appreciable amount (3.76 per cent. by volumetric analysis) was 21. The average maximum systolic blood pressure was 197 m.m. These observations prove that there was no constant ratio between the degree of blood pressure and the intensity of the albuminuria. In this series the highest average blood pressure was noted in cases without albuminuria. Another point noted was the relationship between the quantity of urine excreted and the degree of blood pressure. Thirty-one cases were investigated from these points of view. The average maximum blood pressure in these cases was 180 m.m.; the average daily excretion of urine, 1554 c.c. In one case with a pressure of 285 m.m. the urine only equalled 1000 c.c. per diem. Another, with a pressure of 265 m.m., passed only 720 c.c. of urine. On the other hand, a blood pressure of 255 m.m. has coincided with a polyuria of 5740 c.c.; one of 210 m.m. with 2400 c.c. of urine; one of 140 m.m. with 2400 c.c. of urine. No fixed relation between arterial pressure and renal activity would appear from these statistics. Chronic Bright's disease is essentially a disease involving the arteries and heart as well as the kidneys. Arterial hypertension is one of its salient features, but cases do occur which are not accompanied by hypertension. Eight instances of this were included in this series, two of these being cases of secondary low blood pressure, where the heart had become dilated and unable to sustain the circulatory load. Notwithstanding these exceptions, high blood pressure is so frequent and significant an accompaniment of contracted kidney that it constitutes one of the most valuable diagnostic indications of this disease. Ordinary criteria are often obscure or may fail, but accurate estimation of the blood pressure cannot fail to give the clue to the diagnosis. A systolic pressure of 200 m.m. or thereabouts points very clearly to a lesion of the kidney.

Perforation in Typhoid Fever.

McPhedran (*Montreal Med. Journal*, March, 1907) remarks that this accident is so frequent a cause of death in typhoid fever, and operation in recent years has resulted so favourably, that it merits careful consideration. Perforation may occur in any kind of case, even the mildest ambulatory one, but it is much more frequent in the severe cases with active abdominal symptoms, such as diarrhoea, meteorism and hæmorrhage—all symptoms of extensive and deep ulceration. It is probably a matter of indifference, so far as the liability to perforation is concerned, whether the diarrhoea is due to irritation of the bowel by the toxins of the

disease, by irritating bowel contents from injudicious feeding, or by purgative drugs. The symptoms depend not only on the situation and nature of the perforation, but also on the severity of the general symptoms and the degree of toxæmia. In those with much prostration and blunted perceptions the symptoms may be quite masked, especially if meteorism is marked, so that the occurrence of perforation cannot be more than suspected. In a second class of cases, rare ones in which there is much toxæmia, but without mental obtuseness, the local reaction may be so slight that there are no abdominal symptoms to mark the occurrence of the accident. In a third class of cases, in which neither the mental nor physical perceptibility is much obtunded, the symptoms are always pronounced. It should be noted that the immediate symptoms are due to perforation and local irritation of the peritoneum, while the later ones are caused by the peritonitis and septic absorption caused by infection by pyogenic organisms, and not by the typhoid bacillus. Of the symptoms of perforation, pain is much the more important and constant. It may be the only symptom. It may be so slight that little complaint is made of it, but it is always persistent, and usually, but not necessarily, paroxysmal. The one character of *constancy* should be emphasised, as it stamps the pain as due to organised lesion and not to functional spasm. The author quotes two cases from his experience which prove this point, but which also show that if operation be delayed until one is satisfied that the pain is constant, it will be always too late for a satisfactory result. The pain signifies local peritoneal irritation by whatever cause produced, whether with or without perforation. A variety of conditions may be conceived in causing the pain to be slight and in preventing the occurrence of other phenomena. The infective bacteria may possess little virulence, partial adhesions may circumscribe the area of infection, and so delay, if it does not prevent, the diffusion of the infection in the peritoneum; the patient may possess a sufficient degree of immunity to inhibit the activity, if not arrest the growth, of the infecting bacteria, and further, some people are but little sensitive to painful impressions. Other symptoms usually follow the pain, but more gradually. Of these, abdominal tension, localised or general, is the most common and important. It may, however, be so slight as not to be appreciated on careful examination. Recently increase of blood pressure has been found to occur in all cases of peritonitis. Leucocytosis begins promptly with the occurrence of perforation or of peritonitis from any cause. In some cases the leucocytosis may disappear very early, so that its absence will not preclude the possibility of perforation. In mild cases there is probably seldom any disturbance of the pulse, temperature or respiration, and with such moderation in the symptoms general depression would be gradual, and collapse a later phenomenon, if it occurred at all. In many cases the diagnosis cannot be made with certainty; but fortunately, even if there is no perforation, operation in many cases does not seem to be followed by material injury to the patient's condition. When there are decided symptoms present there can scarcely be any question that it is in the patient's interest to accept the danger of an unnecessary operation rather than the infinitely greater one of a perforation left untreated. In cases of profound toxæmia, a marked typhoid state in which there has been great prostration, with meteorism, delirium and diarrhoea, perforation is often accompanied by early and marked collapse. In these cases it may be questionable whether operation should be done before the symptoms of shock have at least

partially passed off. In such cases either course is beset with difficulties, but it is in the interest of the patient that immediate operation should be performed, as the danger from peritoneal infection that follows so rapidly a perforation is probably a greater menace to life than even the shock. In these severe cases even with immediate operation the percentage of recoveries will always be very low.

Aneurism of Arch of Aorta in a Young Woman.

Peabody (*Medical Record*, April 13th, 1907) records the case of a young woman of 33 years of age (but who appeared much younger) who came under observation in January of this year and died eleven days afterwards. There was no family history of importance. She had always been of a nervous temperament, but had never been ill since an attack of measles in childhood. She had never suffered from heart symptoms, and had never had any manifestations of syphilis. She had had several healthy children, no miscarriages nor abortions. She was accustomed to take four or five cups of coffee a day and two or three glasses of beer at night. Five weeks before admission she first experienced a feeling as if her food were arrested at the level of the ensiform cartilage. This caused a sharp, stabbing pain at this point, which radiated to either side, encircling the body, and meeting behind in the lower dorsal region. This pain had been almost constant, and interfered with sleep. She had been accustomed to taking morphia to secure relief. Associated with this symptom was a well-marked globus hystericus. Her physician had passed a stomach tube, and had encountered a slight distension 10 inches from the teeth, beyond which the tube had readily passed. The stomach was always found empty. The passage of the tube was not painful, but it had given no relief. One week before admission, solid food was found more difficult to swallow than fluid. Occasionally the withdrawal of the tube had been followed by a little blood-stained mucus. Of late her dysphagia had been less marked and all her symptoms had improved. She was a little hoarse, and very nervous and anxious; she had lost 25 lb. in weight. Her conjunctival reflexes were absent, and her pharynx entirely anaesthetic to palpation. Percussion and auscultation of the chest revealed nothing abnormal. There were no scars on the surface of the body, and no enlarged glands. Thus she presented many of the typical stigmata of hysteria, and there was a complete absence of all the physical signs of thoracic aneurism and of the etiological factors which go to justify that diagnosis. Her age and sex were factors in favour of hysteria. For a few days she was put on milk diet, cold packs, faradism to site of pain, laxatives and sedatives at night. She continued to complain of pain, to vomit, and to have increasing difficulty in swallowing. Lavage of the stomach did no good. For some days she was fed once daily through the stomach tube. She slept badly in consequence of the pain, and continued to lose weight. As her symptoms did not yield to the usual method of treating hysterical dysphagia, an X-ray photograph of her chest was taken, and this revealed the presence of an aneurism of the descending aortic arch and showed displacement of the œsophagus. She died a few days later from rupture of the aneurism into the œsophagus. The autopsy showed a small false aneurism of the descending aortic arch, which communicated with the œsophagus through a long, ragged opening. The stomach was full of blood. In the arch of the aorta were several raised patches of that kind of aortitis with a calcareous change which is

commonly regarded as of syphilitic origin. Sections taken from these patches, as well as from the wall of the aneurism, show the areas of atrophy of elastic fibres which are also regarded as diagnostic of syphilis.

PATHOLOGY.

Bacteriology of Infective Diseases of the Urinary Tract.

Suter (*Correspond. Blatt. f. Sch. Aerzte*, abstracted in *Medical Chronicle*, March, 1907) records the results of bacteriological examinations of 211 cases of infections of the urinary tract in Burekhardt's clinic. Infection occurs either *via* the urethra by septic instruments or sterile instruments pushing the urethral septic material into the bladder, or mobile bacilli passing directly into the bladder, or endogenous, i.e., *via* the lymph or blood, or more seldom by direct communication with the intestines or abscess cavities. Out of 114 endogenous cases 78 were tuberculous, 35 were due to *B. coli*, and 1 streptococcal in scarlet fever. The colon and tubercular infections cause similar symptoms (frequent micturition, dysuria, with turbid, acid urine, containing pus and albumen and sometimes blood). The diagnosis is possible in cultures, tubercle bacilli not growing in ordinary media like *B. coli*. Tuberculosis is generally primary in the kidney, and only seldom in the bladder. In the 78 cases examined the urine in 70 was sterile, and in 8 was secondarily infected; in 7 in the urethra; in 1 endogenous. Sterile urine is, however, not diagnostic, but must be controlled by inoculation experiments and renewed search for acid-fast bacilli. Endogenous coli infection is denoted at the time by pyrexia and local disturbances, and the urine is turbid and acid with pus and blood. The colon bacilli do not decompose the urine, and are always found in acid urine in large numbers. In chronic cases there are only slight urinary changes. The mode of infection with *B. coli* is unknown, but is probably from some slight damage to the intestinal mucosa. In 24 cases the primary lesion seemed to be in the kidney or pelvis, the bladder being seldom affected alone. The healthy bladder resists even virulent staphylococci, but prostatitis, stricture, trauma, etc., predispose to cystitis. In cystitis are found *B. coli*, cocci and bacilli alone or mixed, and alkalinity of the urine is not a necessity. Experimental and clinical evidence point to *B. coli* as a cause of cystitis. In long-standing cases the cocci disappear if the predisposing cause be removed. Prostatitis cases are curable, but readily recur; but sometimes *B. coli* enter and overgrow the cocci, the *coli* coming *via* the perineal skin.

Periductal Myxoma of the Breast.

Graves (*Boston Medical and Surgical Journal*, April 18th, 1907) describes the following tumour removed from the breast of a married woman, 38 years of age, of three years' duration. It was a semi-solid tumour, the largest circumference being 26 inches, and the weight 16½ lb. The contour was in general spheroidal, with some irregular nodulation. Section of the tumour mass showed it to be made up entirely of discrete semi-solid fibrous nodules, the nodules averaging from two to three inches in diameter. The entire tumour was invested with a colourless, albuminous-feeling fluid, which could be squeezed out of every portion of it. Small specimens cut from the tumour mass when placed in water floated out like jelly. Careful search for cystic formations revealed only one thin-walled cyst, about one inch in diameter. Many sections were taken from

various parts of the tumour for microscopical examination. They showed numerous variations of a distinctly fibromatous process. In some places there was a pure fibrous structure, with only here and there a cell. The greater number of the sections, however, showed a very cellular fibromatous growth, in which there was a marked separation of the fibres by oedema, so as to give it the appearance of a myxoma. This type of cell was so prevalent as to give the tumour the general character of a myxoma. Numerous areas, however, were found scattered through the myxomatous portions where the cells showed an extreme degree of proliferation, with the appearance of giant fibroblasts and mitotic figures, in every way resembling the process which takes place in the so-called sarcomatous degeneration of uteroid myomata and pelvic fibromata. Some of the sections showed spaces completely filled with the bluish staining mucoid fluid, which was so apparent on cross sections of the gross tumour. One portion of the tumour which showed a distinct reddish discolouration microscopically, revealed under the microscope a well-marked telangiectatic appearance, the blood being contained in thin-walled sinuses, while the lymph spaces were greatly hypertrophied and showed an hyperplasia of the lining endothelial cells. All the glandular structures had evidently been completely obliterated by the rapid and extensive proliferation of the periductal fibrous tissue, as a careful search for epithelial element proved fruitless.

Multiple Tumours in a Dog.

Cullen (*Johns Hopkins Hospital Bulletin*, March, 1907) reports the following case of multiple tumours because of its interesting features—the occurrence of two distinct types of carcinoma or squamous cell carcinoma of the skin and adeno-carcinoma of the prostate. The dog was a St. Bernard, 12 years of age, and weighing 180 pounds. In the summer of 1900 a small lump appeared on the dog's back, close to the middle line in the dorsal region. This increased slowly in size, and at the end of three years it was the size of an orange. In February, 1903, the greater portion of this was removed and the base cauterised. During the 18 months following the operation there were no signs of recurrence, but by April, 1905, it had recurred and attained the size of a coconut. This was again removed, the wound healed rapidly, and no recurrence took place. But the animal never recovered its health and died rather suddenly from progressive weakness in October, 1905. The organs were all normal, except the spleen, which was much enlarged, and on section a considerable quantity of blood exuded from the surface; the picture was one of recent hæmorrhage into the splenic pulp. The prostate was enlarged, firm in consistence and externally appeared uniform. It had a mere depressed capsule, and running from this into the substance of the gland were definite bands of stroma similar in appearance. Between these the tissue had a distinctly honeycombed appearance, greyish-white in colour and rather spongy in consistence. Sections through the centre part of the prostate show the presence of numerous glands with narrow lumina. Many of these have infiltrated the muscle. In more instances the glands are lined by a single layer of well-defined cylindrical epithelium. The individual cells are rather uniform in size and shape. The nuclei are generally situated at the base of the cell, are oval or round, and deeply stained. No nuclear figures were seen. Many of the gland lumina are filled with de-squamated cells in varying stages of disintegration. The connective tissue stroma is rather dense, and con-

tains large numbers of diffusely scattered small mononuclear cells. Examination of the viscera and the various lymphatic glands showed no evidence of tumour metastases. The histological examination of the tumour of the skin showed numerous irregularly shaped alveoli scattered in a stroma of loose connective tissue. Lining the periphery of these is a row of low cylindrical epithelial cells more or less irregular in outline. Internal to this are numerous layers of epithelial cells with oval or spherical nuclei. The nuclei vary considerably in size, one nucleus occasionally being three or four times larger than that of the adjacent cell. Definite epithelial pearls are present in many of the alveoli, and keratinization in parts is extensive. The stroma immediately surrounding the alveoli is rich in connective tissue cells, but the greater portion consists of loose tissue containing a moderate number of small mononuclear cells.

PÆDIATRICS.

Epilepsy in Children.

Keeling (*British Journal of Children's Diseases*, April, 1907) summarises his views as follows:—(1) The pathology of epilepsy appears to resemble in some respects that of cerebral diplegia, chorea, paralysis agitans, neurasthenia, myoclonus and migraine. (2) Etiologically, rickets is an important factor in the causation of epilepsy. (3) A variety of epilepsy, which may be termed toxic epilepsy, is chiefly gastro-intestinal in origin. (4) Reflex epilepsy is apparently rare; peripheral irritation probably plays a very small part in the production of the fits. (5) The effect of measles on epilepsy is uncertain. (6) Chorea is very rarely found associated with epilepsy. (7) Infantile paralysis, especially the congenital forms, is closely related to epilepsy. (8) An injury or a fright is frequently the exciting cause of a fit. Instrumental delivery may be followed by paresis, with subsequent epilepsy. (9) Enuresis is an occasional sequela of epilepsy. (10) The disease known as night terrors is probably a mild form of epilepsy. (11) The three affections most frequently found in the family history of epileptics are epilepsy, migraine and alcoholism. (12) Migraine appears to be closely allied to epilepsy, both in the family history and symptomatically. (13) The differential diagnoses between Ménière's disease and epilepsy is occasionally difficult.

The Feeding Problem.

L. Emmett Holt (*British Journal of Children's Diseases*, April, 1907) discusses some phases of the feeding problem. He believes the refinements in the percentages of fats, proteids and sugar down to one-tenth of one per cent. to be unnecessary. The schemes for calculating such percentages are much too elaborate. The essential thing in a satisfactory scheme is simplicity combined with moderate flexibility. High percentages of fat are often harmful. Even with healthy infants the food should not contain more than four per cent., and in many conditions even three per cent. is excessive. When top milk is used, it is important to know the approximate percentage of fat in the top half, third or quarter, and to bear in mind that the percentages are not the same in the mixed milk of a herd as in that of a Jersey cow. The essential points in infant feeding to be taught to students are:—(1) The normal range of milk percentages borne by infants; (2) the approximate percentage composition of milk, top milk and cream; (3) the simplest method of obtaining the percentage derived from these ingredients; (4) the necessity of slating at once into percentages any milk formula

the patient may be using, and a simple method of making such a calculation. Holt's method is to multiply the percentage of the particular ingredient by the number of ounces used in the mixture and divide by the total number of ounces in the mixture, e.g., 10 ounces of 10 per cent. fat milk (top milk) in a 40 ounce mixture gives the following results: Fat ($10 \times 10 \div 40$) 2.5 per cent.; proteid ($3.3 \times 10 \div 40$) 0.8 per cent.; sugar ($4.4 \times 10 \div 40$) 1.1 per cent. In the discussion which followed, the general opinion was that a terrible and unnecessary fuss was made over percentage feeding and formulae, and that too high a proportion of fat was very often prescribed, often on account of the methods of home modification made use of (*Arch. of Pediat.*, 1906, vol. 23).

Infantile Mortality and Goat's Milk.

Wm. Wright (*Lancet*, Nov. 3rd, 1906, abstracted in *British Journal of Children's Diseases*, Feb., 1907) points out the advantages of goat's milk in infant feeding. The goat, he says, is practically immune to tuberculosis and, with but few exceptions, the only instances in which this animal has been found to be suffering from this disease are when it has been closely housed with tuberculous cows and has obtained its infection therefrom. The casein of goat's milk forms a flocculent and much more digestible curd than that of the cow. The nourishment obtained from goat's milk is also superior to that of cow's milk and is more suitable for infants. The alleged odour of goat's milk is a mistaken idea. If the goat is allowed to roam about and eat weeds, twigs and all kinds of vegetation at will, the milk will be very strong in odour; but if the animal is fed on an English meadow or roadside the milk will resemble that of the cow in flavour.

Treatment of Scarlet Fever.

Polozker (*Archives of Pediatrics*) summarises his article as follows:—(1) The more thorough isolation of the patient; (2) isolation for a while of other members of the family that come in contact with the patient, especially children; (3) more care by the physicians and those who wait upon patients; (4) a more thorough disinfection of premises after discharging a patient with scarlet fever; (5) early diagnosis and more careful watching by the physician in mild cases of scarlet fever; (6) the use of anti-streptococcus serum in all cases showing any tendency to be severe or accompanied by any complications, especially angina; (7) the removal of hypertrophied or diseased tonsils and adenoids in children; (8) the frequent examination of urine in scarlatinal cases; (9) the continued care of the patient until all the desquamation is over and all complications are well, especially so with otitis; (10) refusal of permission to go to school for the longest time possible consistent with education; (11) the refusal of surgical and obstetrical cases by the physician attending many cases of exanthemata; the time will come when the exanthemata will be treated by a specialist only—a man that will confine himself to these cases; (12) constant efforts to enlighten the laity upon the dreadful results of this disease and its complications, and for more rigid health laws.

QUEEN VICTORIA HOMES FOR CONSUMPTIVES, NEW SOUTH WALES.—Queen Victoria Home for Women at Thirlmere.—Required, an Assistant Resident Medical Officer. Salary, first year £100, second year £150. Lady or Gentleman. Applications with testimonials to be sent to H. A. James, Hon. Sec., Royal Chambers, 3 Castlereagh-street, Sydney.

MEDICAL MISCELLANY.

At the City of London Crematorium nine cremations took place in 1905, its first year; this had risen to 23 during 1906. Throughout the country the number has risen from three in 1885 to 743 in 1906. During those years no fewer than 5761 cremations were carried out in the United Kingdom. The sanitary advantages are greatly in favour of cremation, and religious prejudice is gradually dying out. The slight expense, as compared with the cost of funeral fees, is undoubtedly a factor in influencing the more intelligent classes to adopt this rational method of disposing of their dead.

The great religious pilgrimages of India form, as is well known, a most efficient agency for the dissemination of disease. As an instance of this an outbreak of cholera in Calcutta is quoted, the disease costing 1014 lives, owing to the assemblage of some 80,000 persons attending the Kalighat Temple during the solar eclipse.

As far back as 1883 national German legislation was started to provide for three kinds of compulsory industrial insurance—first, against disease; second, against invalidism and old age; third, against accident. It appears that 15 million people in the German Empire have the first form of insurance. Every one who works for wages pays two-thirds of the cost of his insurance, the other third being paid by the employer.

Medical quacks have fallen under the lash of London *Truth*, which publishes at the end of each year what is termed a "cautionary list" containing the names and descriptions of all the fakes which have come under its notice during the year. Since the operation of the law in the United States which forbids the use of the mail for carrying on a quack business in that country, a large number of quacks have flocked to Great Britain, where they can carry on their nefarious operations with impunity.

An epidemic of plague has again broken out in Newchang, China, and the disease seems to be in the most malignant form, death occurring within a few hours. The first symptoms are headache and fainting spells, which are followed in a few hours by bloody foam running from the mouth.

The Danish law aiming at repression of venereal disease, which went into force last September, applies to prostitutes the regulations in vogue against vagabondage in general. It is prohibited to maintain a brothel or to rent rooms to prostitutes under 18, or for assignation purposes, under penalty of imprisonment, with a penitentiary term of two years in case of repetition of the offence. Strict penalties and liability for damages are also imposed for transmission of venereal diseases.

A bill is to be brought into the British Parliament proposing that from April, 1910, all the present weights and measures used in Great Britain shall be replaced by those of the metric system. This bill will ensure easy education in the new system by ordering local authorities to provide local standards at least 12 months before the Act comes into operation.

Doctor: Have you consulted anyone else? Patient: I went to see a chemist, and he told me— Doctor (interrupting): Don't tell me that you asked advice of a chemist; no one except a lunatic would take the advice

of a chemist. Patient: I was about to say that he told me to come to you."

The law in Constantinople entrusts the whole matter regulating the sale of proprietary drugs to the Prefecture of the city, and this has to see that every medicine and pharmaceutical preparation is sold to the public only by authorised, duly qualified pharmacists and officially recognised specialists, and only then when the properly-signed prescription of a medical man is presented.

A demonstration of a new process of shaving without the use of a razor was held recently in London. The beard was painted with a special preparation, kept moist with a water spray for a couple of minutes, and the hair was removed with a blunt paper knife.

Cable despatches state the King of Spain is suffering from tuberculosis, and the Spanish Court is very uneasy regarding his condition.

The death of a member of the Sophomore class at Harvard is reported after an illness of four days from cerebro-spinal meningitis.

The editor of the "Journal of the Royal Army Medical Corps," commenting on Prof. Koch's method of treatment for sleeping sickness, remarks:—"Atoxyl is a compound of arsenic, and it is to the arsenic in it that the effect on the trypanosomes is due. Arsenic in various preparations has been tried in the treatment of various forms of trypanosomiasis for the past 15 years, and with the same result. The parasites are driven out of the blood and remain out of it, sometimes for a long time, but sooner or later they return, and the case ends fatally. The statements at present going the round of the newspapers that cures of sleeping sickness have been effected must therefore be received with caution."

Dr. Paul Moebius, the author of the famous dictum that "Hysteria is a disease in which morbid ideas rule the body," died recently in Leipzig. He was one of the earliest determined opponents of alcohol in Germany. His specialty was the nervous system, in the treatment of which he laid great stress on the influence of the mind as a curative agent. He was known in literature for his papers on Schopenhauer, Goethe, Rousseau, and Nietzsche, from the standpoint of the alienist. His treatment on Goethe did not meet with much approval, because that poet occupied such an exalted place in the estimation of the German people that description of his mental ailments hurt their feelings. Much acrimony was aroused also by his treatise on the mental inferiority of women, and other problems of sex. He always gave fearless expression to his views—an absolute essential in the thorough-going scientist.

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CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Urgent Financial Appeal from the Brompton Hospital for Consumption—University Degrees for the Colonial Premiers—The Royal College of Surgeons—The Hospital Saturday Fund—Lord Lister's Birthday—Dublin University.

THE good work which the Brompton Hospital for Consumption has hitherto carried on seems in danger of being interfered with by want of pence. An appeal has just been issued in which it is stated that increased funds are urgently required, especially for the more prolonged treatment, by open-air methods, of convalescent patients. It is pointed out that the income of the hospital has diminished since the institution of the King's Fund to the extent of an annual average of £4000 during the past 10 years. Having regard to the general efficiency of the hospital, it is impossible to reduce the annual expenditure below its present rate. The proof that the utmost economy is practised in the management is shown by the fact that the average cost per bed in 1905 was only £73. Notwithstanding the addition of 110 beds in the sanatorium, the ever-growing demand for admittance to the parent hospital has not decreased, there being at the present time no fewer than 400 patients waiting their turn to be admitted, the largest number at any one time in the history of the hospital. The Lord Mayor has consented to preside at a meeting to be held at the Mansion House in support of this appeal.

At the Spring graduation in Arts, Science, Law and Theology at the University of Edinburgh on April 12th, the degree of LL.D. was conferred on the Premiers of New Zealand, Cape Colony, and Natal; Professor Burnet, of St. Andrews; Professor Hamilton, of Aberdeen; Sir John Tweedy, of London, and Mr. Thos. McKie, of Edinburgh. Professor Sir Ludovic Grant, Dean of the Faculty of Law, said, in introducing the Premiers, that the degree had been offered to two colonial Premiers whose names did not appear on the list, viz., Mr. Deakin and General Botha, who were unable to be present to-day, but whom they expected to see later in the year. Sir Ludovic Grant, in presenting the three Premiers, each of whom had a very cordial reception from the students, said that Dr. Jameson's achievements in the service of the British South Africa Company were a tale of triumphant diplomacy and victorious military skill, a tale of resolution and promptitude, of self-devotion, pluck and endurance. Though scarce seven years had elapsed since his entry into the public life of Cape Colony, his brilliant gifts and dauntless energy had carried him to the foremost position. In presenting Sir Joseph Ward, the Dean spoke of the numerous and varied duties he had discharged. He had filled the offices of Postmaster-General, Minister of Railways and Telegraphs, Minister of Industries and Commerce, Minister of Public Health, and Colonial Treasurer. His life from boyhood had been a preparation for this manifold activity. Perseverance, energy and a rare business capacity had been his dominant characteristics and had enabled him to sustain the various rôles he had filled. Of the Hon. Frederick Moor, Sir Ludovic said that the period of his connection with political life, when he entered the Natal Legislative Assembly in 1886, had been marked as outstanding in its constitutional history, in respect of its acquisition of responsible government, and among those who devoted their energies to the attainment of

that great end none lent more zealous or effective aid than Mr. Moor. He had discharged all the onerous duties devolving upon him with the greatest tact and wisdom, and his promotion to the highest political office in his country was the one reward of long and faithful service. Sir W. Turner then performed a unique function. He said the War Office recently asked the Universities to undertake the special training of graduates to hold army commissions. They acceded to this request two years ago by appointing a lecturer on military subjects, and now Mr. Reuben Watt Allen had passed the necessary examinations and received a commission in the Royal Artillery. Sir William presented him with a sword.

A meeting of Council of the Royal College of Surgeons of England was held at Lincoln's Inn on March 14th, Mr. Henry Morris (president) being in the chair. The following members of the College having passed the required examinations and conformed to the by-laws, were admitted Fellows of the College:—Mr. Lionel Edward Close Norbury, M.B., B.S., L.R.C.P. (Lond.) of St. Thomas's Hospital, and Mr. Gerald Charles Frederick Robinson, L.R.C.P. (Lond.), of Guy's Hospital. Mr. Henry Orton Howitt, of McGill University, Canada, and London Hospital, was admitted a member of the College, and a diploma of the license in dental surgery was issued to Mr. Thornton John Barnett, of Charing Cross and the Royal Dental Hospitals. Mr. J. Ernest Lane, surgeon to St. Mary's Hospital, was admitted a member of the court of examiners. Mr. J. Rickman Godlee, vice-president, was appointed Bradshaw lecturer for the ensuing collegiate year. Mr. A. Pearce Gould was re-appointed one of the two representatives of the College upon the Senate of the University of London for the next four years. Mr. J. Ward Cousins was re-elected the representative of the College on the Central Midwives Board for the ensuing year. The President reported that the Sir Gilbert Blanes medals had been awarded to Staff-Surgeon James William Wilcocks Stanton, of H.M.S. "Suffolk," and Surgeon Bernard Ley, of H.M.S. "Algerine." The Secretary submitted a list of 2708 signatures in support of the petition to the Council in favour of the admission of women to the examinations of the College, sent from the London School of Medicine for Women. The list contains no signatures of medical women or of lay persons, other than those officially connected with the School of Medicine and the Royal Free Hospital. A letter was read from Dr. Arthur Keith, reporting his attendance as the representative of the College, with the deputation to the Prime Minister to urge the importance of a national anthropometric survey, and giving a short account of the grounds upon which the importance of the survey was urged and of the reply of the Prime Minister. At a quarterly meeting of the Council held on April 11th, the Jacksonian prize for the year 1906 on "the diagnosis and treatment of those diseases and morbid growths of the vertebral column, spinal cord, and canal, which are amenable to surgical operations," was awarded to Mr. Donald John Armour, F.R.C.S. The following subject was chosen for this prize for the year 1908: "The pathology and treatment of those conditions and diseases of the colon which are relievably by operative measures." The subject chosen for the next triennial prize was "The histological anatomy of the lymphatic and hæmolympathic glands, more especially with reference to the changes which these glands undergo in acute infective processes." Mr. J. Ward Cousins, the representative of the College on the Central Midwives' Board, reported the proceedings of the board during the past

year, and informed the Council that the board had recognised 48 training schools in England, six in Scotland, and seven in Ireland, while the number of teachers appointed was 144. The board had held examinations in London, Bristol, Manchester, and Newcastle-on-Tyne. One thousand nine hundred and seventy-six candidates entered for the examinations; of that number 1527 received their certificates and 449 were unsuccessful. The number of certified midwives on the roll was now 24,549.

The thirty-third annual meeting of the Hospital Saturday Fund was held at the Mansion House on April 20th, under the presidency of Sir William Treloar, the Lord Mayor. The annual report showed that the income of the fund in 1906 was £26,460, as against £25,930 in 1905, an increase of £530. The Board of Delegates had sanctioned the distribution of the sum of £23,898 among 205 institutions as follows:—General and Special Hospitals, £16,241; Convalescent Homes, £1469; dispensaries, £911; distribution committee, £2550; surgical appliance committee, £1500; ambulance committee, £111; miscellaneous institutions, £1116. This was the largest sum ever distributed in one year, and exceeded that distributed in the previous year by £267. The distribution committee issued 41,686 letters of recommendation during the year; the box collectors emptied 7791 boxes, obtaining therefrom £5251, the average being 13s 6d per box; the surgical appliance committee supplied 5231 appliances at a cost of £4372 10s 2d, towards which the recipients or their friends contributed £3114 9s 3d; 879 dental cases were dealt with at a cost of £2348 11s 7d; and the ambulance committee issued 18 additional ambulance boxes during the year, bringing the total in use up to 180. The Lady Mayoress presented a number of medallions and diplomas of merit awarded for efficient first-aid work during the year.

Lord Lister celebrated his 80th birthday on April 5th. The medical profession all over the world united to do him honour, and nothing could have prevented a great demonstration of affection and regard on the part both of the public and the profession but consideration for his advanced age and feeble health. His house in Park Crescent, Portland Place, was inundated all day with telegrams, letters, messages of congratulation and floral offerings of the most varied kind. In the forenoon a deputation from the Royal College of Surgeons, together with some distinguished representatives of surgery from abroad, waited upon Lord Lister to congratulate him upon his anniversary. The speeches were of the briefest description, because it was recognised that his Lordship was unable to stand the strain of any long ceremony. Mr. Jonathan Hutchinson spoke of his long acquaintance with Lord Lister and of the enormous benefit which mankind had received through the latter's researches. Dr. Martin, of the Lister Institute of Preventive Medicine, presented a congratulatory address. Dr. Thorvald Madsen, of Copenhagen, bore an address signed by a thousand members of the profession and present hospital students of Denmark. This address was splendidly illuminated, and is one of the most interesting mementoes of the occasion. From Amsterdam came Professor Tilanus with a congratulatory address from surgeons and physicians of Holland. To the deputation Lord Lister offered a few grateful words. He has not been able as yet to reply to, or even to collate, the hundreds of telegrams and letters of congratulation, but he is greatly touched by the warm manifestations sent him from all parts of the world,

and particularly pleased by the proposal to publish in collected form his writings on surgery. To commemorate Lord Lister's 30 years' connection with King's College Hospital, London, in which so many of his important researches were made, and of which he is still consulting surgeon, the following congratulatory address was presented to him by the members of the Medical Society and present students of the hospital:—
“My Lord,—We, the undersigned, being members of the King's College Hospital Medical Society, and other students of the Hospital, wish to offer you our heartiest congratulations on the attainment of your eightieth birthday. We desire to express our appreciation of the honour we feel in being associated with a hospital which has been made illustrious in all countries and for all time by being the scene of your many researches and discoveries, and with a medical society which has been honoured with your presidency. We cannot adequately express our gratitude for the great example which you have set us.” A representative meeting was held at the College of Surgeons on April 4th, Mr. Henry Morris, president of the college, being in the chair, when it was decided to appoint an editorial committee to carry out the work of republishing in one or two quarto volumes all the papers relating to surgery and pathology written by Lord Lister during his long career. The publication has been undertaken by the Clarendon Press.

A meeting of graduates of Dublin University was held in Trinity College on March 22nd, for the purpose of protesting against the Government's Irish University scheme, as outlined by Mr. Bryce in a speech delivered before his departure for Washington. Graduates from all parts of the United Kingdom attended. So great was the response that it was found necessary to divide the meeting into two sections, one meeting being held in the examination hall and the other in the dining hall. The following resolutions were simultaneously proposed at both meetings and carried amidst enthusiasm:—“That this meeting protests against the scheme put forward by Mr. Bryce in his speech of January 25th, 1907, as a grievous injustice to this University and disastrous to the best interests of higher education in Ireland.” “That the enforced alliance within the same University of Trinity College and a college specially designed for Roman Catholics would be followed by sectarian strife, and must entail serious limitation to liberal education and free enquiry not only in the University but in Trinity College, the educational ideals of the two colleges being incompatible.” “That the prestige of the University of Dublin would not survive the process which abolishes the old university of three hundred years and transfers its name to a new and different institution.” “That copies of these resolutions be sent to the Prime Minister, the Chief Secretary, to the Lord Lieutenant, and to the other members of the Cabinet.”

Victoria.

(FROM OUR OWN CORRESPONDENT.)

The Victorian Branch of the B.M.A.—Public Health—Medical Officers of Health—Death of Dr. Cox.

THE amalgamation of the Victorian Branch of the British Medical Association and the Medical Society of Victoria has now been in force for six months, and in many directions an increase of activity is already to be seen. Many among us only now realise how handicapped we have been in the past in matters of public policy pertaining to the profession. This is the more to be regretted, as it has prevented our Branch from falling

into line with the Branches in the other States in adopting the *Australasian Medical Gazette* for our official organ. The ideal aimed at in Dr. Hughes' motion of a month or two ago of having one journal to represent the whole of the Australasian Branches will not be lost sight of. We all hope that it will be realised in the not very distant future. In order to more thoroughly organise the profession in Victoria an attempt is to be made to inaugurate divisions throughout the State, each division being represented upon the Branch Council. There have in the past been so-called sub-branches, but without such representation. In the metropolitan district a certain amount of work has been done outside the larger societies in special directions, by such bodies as the Ophthalmological Society, the Pediatric Society, etc. It is now proposed to bring these bodies into the Branch by recognising them as sections. A series of rules to govern the formation of such special sections has been adopted by the Council, and will be submitted to a special meeting of the Branch called for that purpose on June 12th.

From the point of view of public health the past summer has been most satisfactory, especially in the metropolitan districts. There has been only one outbreak of typhoid fever worthy of the name. This occurred last month in Prahran, and was traced to a milk supply contaminated at the supplying farm at Heidelberg. The cases, though many, were in the majority of cases mild. We have also had a case of bubonic plague, which ended fatally. The patient, a pantry-man on board an inter-State steamer, undoubtedly contracted the disease in Sydney. The case was isolated at once on arrival, and no further cases have occurred.

The scheme proposed by the chairman of the Board of Public Health (Dr. W. P. Norris) for the appointment of full-time officers of health, instead of the system of part-time local officers, which now obtains, has been provocative of a great deal of discussion, and by no means all favourable, in the various municipal councils. Dr. Norris has drawn up a most comprehensive schedule of duties, which could not possibly be carried out under the present system, especially in country districts. In his memorandum Dr. Norris says: "I cannot see my way to recommend any system of health administration which would abrogate the functions and responsibilities of municipal councils in this regard." He says this, even though he recognises how often under the present system any criticism of local administration by the Board of Health and its officers is resented by the municipal body concerned. There can be no question that in many municipalities the administration of the Acts is lax in the extreme, and this is only what is to be expected in the many cases where the remuneration of the local officer of health is ludicrously inadequate.

The Alfred Hospital has suffered a severe loss by the death of Dr. James Cox, which occurred on May 31st, suddenly from cerebral hæmorrhage. Dr. Cox had for many years been in charge of the ear and throat department at the hospital, where he was doing good, sound work. Among his colleagues on the hospital staff he will long be remembered for his genial, though quiet manner. His place will indeed be a difficult one to adequately fill.

CALCIUM METABOLISM.

(To the Editor of the *Australasian Medical Gazette*.)

SIR,—In a paper read recently before the New South Wales Branch of the B.M.A., I adduced certain evidence which appeared to me to show that the so-called thyroid

diseases are the expression of disturbances in calcium metabolism, and hinted at the importance of calcium in certain other conditions.

This paper was read on April 26th and published in the *A.M. Gazette* of May 20th. On May 22nd I received a copy of the *British Medical Journal* of April 20th, containing a communication from Dr. W. Blair Bell, of Liverpool, England, preliminary to the publication of experimental results in connection with an investigation into "The part played by calcium salts in the blood and tissues."

Dr. Bell's outline of the series of experiments which he has set on foot, evidences a line of investigation very much in accord with that indicated in my paper on thyroid disease, and I beg leave now to direct attention to this fact.—I am, etc., RSES F. LEWELLYN.

Braidwood, June 3rd, 1907.

CORRIGENDA.

In *A.M. Gazette* of May 20th in paper on "The Internal Secretions of the Ovary and Testicle in Relation to the Secretions of Certain Ductless Glands," p. 231, right hand column, line 9, for "chloride" read "chlorine"; p. 232, for "its own vessels" read "the thyroid's own vessels"; p. 233, for "Mr. H. Batty Shaw" read "Dr. H. Batty Shaw"; p. 235, right hand column, line 6, for "in" read "from"; p. 235, under references, for "*B.N.J.*" read "*B.M.J.*"; p. 236, for "thermatoid" read "rheumatoid."

OBITUARY.

JAMES COX, M.R.C.S. (Eng.), M.D. (Melb.), Melbourne.

We regret to record the sudden death, on May 31st, from cerebral hæmorrhage, of Dr. James Cox, of Collins-street, Melbourne, and Hawthorn-road, Caulfield. He was born in Melbourne and took his M.B. at the Melbourne University in 1875. He proceeded to London and obtained the diploma of M.R.C.S. (Eng.) in 1881. On his return he took the M.D. degree at the Melbourne University. On a later visit to Great Britain he made a particular study of ear, nose and throat affections, and ultimately practised in Melbourne as a specialist. He is said to have been the pioneer operator for the removal of post-nasal growths, and for many years was the leading aural surgeon in Melbourne. Dr. Cox married the eldest daughter of the late Dr. Mein, who survives him. He also leaves a son, who is now completing his medical course in London, and a daughter, who has just returned from there after finishing her education. Dr. Cox's death will be much regretted, not only by members of his profession, who held him in the highest esteem, but by a wide circle of friends.

ROBERT BURNS, L.R.C.S. (Edin.), 1856; F.R.C.S. (Edin.), 1875, Dunedin, New Zealand.

Dr. Robert Burns died at his residence, Union-street, Dunedin, on May 7th, at the age of 73 years. He was born in Edinburgh in 1834, and was educated at the High School and Edinburgh University. After holding the position of house surgeon at the Leith Hospital for two years he decided to emigrate, and he came to New Zealand by the ship *Three Bells* in 1858. He commenced practice in Dunedin immediately after arrival. For about four years he was associated with Dr. Hume, provincial surgeon at the Dunedin Hospital. Dr. Burns

rendered valued services to the cause of education as a member of the University Council. He was a member of the first Council elected and retained his position until the time of his death. He also held the position of gaol surgeon for several years.

EDWARD ELPHICK, L.R.C.P. (Lond.), M.R.C.S. (Eng.), 1869; L.S.A. (Lond.), 1868; Collie, W.A.

We regret to announce the death, on May 14th, at Collie (W.A.), of Dr. Edward Elphick, who for over 20 years was in practice on Yorke's Peninsula. Moonta and Maitland were respectively his places of residence, but the duties of his profession brought him intimately into contact with residents of the neighbouring localities, in all of which he was highly esteemed and respected alike for his ability as a medical adviser and for his sterling character and benevolence. He left the Peninsula 15 years ago, and after practising for comparatively short periods in other parts of this State and in Victoria, finally settled in Western Australia. He has left a widow, six sons, four daughters, and three grandchildren.

Information has been received of the death at Winlaton, Newcastle-on-Tyne, England, on April 3rd, of Dr. Colin Campbell, who was formerly a resident of Melbourne. He was a son of Mr. Donald Campbell, of Cressy, and in 1891 went from Tasmania to Melbourne University. He was one of the finest football players in Victoria. He was also a first-class cricketer. Subsequently he went to Edinburgh University, where he completed his medical course. While in Edinburgh he represented Scotland against an Australian eleven at cricket. After receiving his qualification he went as resident medical officer to Liverpool Infirmary, and for some years had been practising at Newcastle-on-Tyne.

Dr. Stanton Crouch, eldest son of Mr. G. S. Crouch, of North Hobart, died at his father's residence on June 9th. The deceased was born in Invercargill, New Zealand, but was educated in Hobart. About 20 years ago he went to London and qualified for the medical profession. Ultimately he became a colleague of Dr. Ellis, Peckham, and subsequently went into partnership with him. Twelve months ago he became ill with consumption, and some time later acted on the advice of his medical advisers and left England for Hobart, arriving there three weeks ago. Since his arrival at Hobart, Drs. Gibson and Campbell have been attending him. The deceased leaves a widow, but no children. He was 42 years of age.

Medico-Ethical and Medico-Legal.

A Question of Ethics.—A practitioner in a neighbouring State submits the following case:—A. is an old friend and patient of Dr. B. He has recently arrived from a voyage in the East, and consults Dr. B. about a neoplasm of the tongue and floor of the mouth. He has had medical advice in the East, and a portion of the growth was removed, examined microscopically, and pronounced non-malignant. Dr. B. calls Dr. X., a well-known surgeon, in consultation; the diagnosis is doubtful, but A. refuses to have another portion removed for examination. Dr. B. and Dr. X. then agreed that if malignant, the growth was too extensive for removal, but as the growth was possibly syphilitic, they agreed to put the patient on anti-syphilitic treatment.

As the patient grows worse, and Dr. B. is anxious about him, another consultation with Dr. X. is agreed upon, and the same opinion is given. Dr. B. is prepared to meet anyone else in consultation, but the patient is satisfied, and Dr. B. continues in attendance upon him. Then Y., a friend of the patient, urges him to have the opinion of Dr. Z., and on his urgent entreaty A. consents to go with Y. to Dr. Z.'s consulting-room. Dr. Z. is informed of the whole history, and that A. is under Dr. B.'s care. Dr. Z. also suspects malignant growth, and urges the removal of a piece for examination. This is again refused; but Dr. Z. urges the patient to go to his private hospital for a slight operation, possibly preliminary to a more extensive one. A hesitates, and will not agree until after further consideration. He is subsequently taken ill at his hotel, and Dr. Z. at Y.'s request visits the patient, without communicating with Dr. B. Dr. Z. says he paid a "friendly visit" with the object of assisting him to make up his mind about going to his hospital, "as he was so interested in A.'s pitiable condition," although he had only seen him on one occasion previously. He also takes occasion to again urge A. to go at once to his private hospital, and offers to send a nurse to take him there. A. refuses, and considers this extraordinary conduct on the part of Dr. Z. Dr. B. is first informed of this "friendly visit" when he visits A. as usual next morning at the hotel. Dr. Z. did not communicate with Dr. B. at all. (A. died five weeks later.) Dr. B. then corresponds with Dr. Z., who does not dispute the accuracy of the facts as stated, but urges that he was prompted by motives of pity for the unfortunate patient in paying him a "friendly visit," and that he charged no fee for this visit.

The following questions are then asked:—

- (1) What constitutes a "friendly" visit?
- (2) Should the visit paid by Dr. Z. to A. be considered as a friendly visit?
- (3) Did Dr. Z. act in an honourable, straightforward and strictly professional manner in paying a visit to Dr. B.'s patient behind his back, with the openly avowed object of inducing A. to enter his hospital under his care?

(1) A "friendly" visit we consider to be one paid by a medical practitioner to a patient not under his professional care as a matter of courtesy and with the full knowledge of the practitioner in attendance. On such an occasion any reference to diagnosis or treatment of the patient should be tabooed, except again with the consent of the practitioner in attendance.

(2) and (3) On the evidence and correspondence as submitted to us, we must answer both these questions in the negative.

MEDICINAL SPRING FOR SALE OR LEASE.

The Mittagong Land Co., Ltd., is prepared to treat with persons who might be willing to erect a hydropathic establishment at Lady Mary Fitzroy's Medicinal Spring, Mittagong. Arrangements could be made by a suitable person or syndicate for the purchase or lease of the Spa and surrounding lands on exceptionally favourable terms. The water is of a chalybeate nature, and contains 5.98 grains iron bicarbonate per gallon. Mittagong possesses a healthy climate, being situated at an elevation of 2069 feet above sea level, in the midst of charming scenery, with good roads for drives and walks leading to many picturesque resorts. Further particulars as to analysis and terms may be obtained from the Manager, Mittagong Land Co., Ltd., 86 Pitt-street, Sydney.

Australasian Medical Congress.

EIGHTH SESSION, MELBOURNE, 1908.

THE eighth session of the Australasian Medical Congress will be held in Melbourne in 1908, under the presidency of Professor H. B. Allen, M.D., the session commencing on Monday, October 19th, and terminating on Saturday, October 24th.

The subscription is one guinea net, and will entitle every member to a copy of the Transactions of Congress.

The Railway Departments of Australasia will issue concession tickets to members (with wife or one daughter accompanying the member) for the return journey at the usual special rates, on presentation of certificates from the State Secretaries of Congress. Particulars will be supplied to intending members by the State Secretaries. It is anticipated that reductions in fares similar to those granted in previous years will be made by the inter-State steamship companies.

The Council of the University of Melbourne has kindly granted the use of its buildings. The Government of Victoria has with customary liberality undertaken the printing of the Transactions.

Addresses will be given in full Congress by the Presidents of the Sections of Medicine, Surgery, Pathology, and Bacteriology, and Public Health. Special meetings of the Congress will be devoted to (1) The Relations of hospitals to the medical profession; (2) Syphilis.

Committees of the various sections are in correspondence with the presidents and vice-presidents of sections, with a view to the early selection of subjects for consideration.

Those desirous of becoming members should send in their names at once to Dr. H. C. Maudsley, General Secretary, 8 Collins-street, Melbourne, or to the Secretary for the State in which they reside.

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Fox, Mr. H. M. Hewlett and Mr.
Herman F. Lawrence.

CONGRESS MUSEUM COMMITTEE.—*For Surgical In-
struments:* Dr. W. A. James and Dr. D. Murray
Morton. *For Pharmaceutical Preparations, Foods, etc.:*
Dr. J. W. Springthorpe, Dr. F. H. Cole and Dr. T. P.
Dunhill. *For Pathological and Bacteriological Spec-
imens:* Dr. R. J. Bull and Mr. C. H. Mollison.

STATE SECRETARIES OF CONGRESS.—New South
Wales: A. A. Palmer, M.B., C.M., F.R.C.S. (Edin.), 149
Elizabeth-street, Sydney. New Zealand: North Island
—Tracy R. Inglis, M.B., B.S. (Melb.), Ponsonby-road,
Auckland. South Island—F. Stanley Batchelor,
F.R.C.S. (Eng.), L.R.C.P. (Lond.), 236 George-street,
Dunedin. Queensland: W. W. Love, M.B., C.M.
(Edin.), 55 Wickham-terrace, Brisbane. South
Australia: J. B. Gunson, M.B., (Adel.), M.R.C.S.
(Eng.), North-terrace, Adelaide. West Australia: A.
J. H. Saw, M.A., M.D., B.C. (Cantab.), 484 St. George's
Terrace, Perth. Tasmania: Gregory Spratt, M.D.,
Ch.M., D.P.H. (Glasg.), 46 Macquarie-street, Hobart.

Tropical Diseases.

THE *Townsville Daily Bulletin* of May 27th reports that during the recent visit of the Governor-General, Lord Northcote, to the Northern Territory, a deputation from the Townsville Chamber of Commerce and Townsville Hospital Committee waited upon him with reference to the proposed Tropical Diseases Institute.

Dr. Ross spoke of the necessity for an institute of the kind from a medical point of view, remarking that the prevalence of malarial fever throughout the north was well known, as were also the difficulties of treatment and dealing with the prevention of outbreaks. It was also realised that in malarially-affected countries when the soil was being opened up through the erection of buildings, formation of roads, construction of railways, etc., the fever increased not only in the number of persons affected, but also in virulence. When it was considered what a large area of country around the Gulf of Carpentaria and other parts of North Queensland was awaiting development it was evident that malaria would probably in the near future increase rather than diminish unless proper means were taken to combat it. Ankylostomiasis (commonly called the

earth-eating disease) was also very prevalent in North Queensland, and it had been shown in the construction of the St. Gothard tunnel through the Alps, and in other places, that the disease increased when new country was being opened up. Another obvious reason for the establishment of the proposed institute was found in the recent outbreak at Port Douglas, where a disease officially recognised as plague had resulted in a mortality of only 2 per cent., a remarkable contrast with the death rate usually associated with plague. That showed that the disease must have been varied in some way from its normal form. Another circumstance in dealing with the diseases of the tropics was the recent discovery of leprosy at Charters Towers. The two cases which occurred there, together with the growing connection of the North with the East, impressed on most people the necessity of having the disease always quickly recognised so as to prevent its settlement in their midst. The diseases he had mentioned referred particularly to the coast, but the inland districts had also diseases peculiarly their own. In the west of Queensland, both north and south, there prevailed a disease commonly known as "Barcoo rot," and the number of cases treated over the vast area was sufficient evidence that the disease required further study. The prevalence of eye diseases among children in the west, particularly around the rapidly growing district of Cloncurry, was also well known, and required closer investigation. From what he had said the necessity for an institute for the study of tropical diseases was obvious, and it was also apparent that such an institute should be situated within the tropics, because almost all diseases mentioned were immediately associated with insect life within tropical boundaries. Malaria and filaria were conveyed by special forms of mosquitoes, and most of the facts known about them were discovered by actual study of the insect in its native habitat. The mosquito was also responsible for the spread of yellow fever, which is not known to exist in Australia, and if one single case of that disease were accidentally introduced the conditions would be favourable for its propagation. Dengue fever was also conveyed by mosquitoes. The necessity to study the insects had already been recognised by the trustees of the Australian Museum, who endeavoured to collect all the species of mosquito in Australia. Another obvious reason for the establishment of the institute in North Queensland was its close proximity to the Eastern Archipelago, and as the trade of these islands and the East increased Queensland must run the risk of being more and more open to infection by diseases comparatively unknown in Australia.

The Bishop of North Queensland said the Townsville Hospital Committee had made certain concessions which would lead to the foundation of a research institute in Townsville. But it was not proposed that the observation of diseases would be restricted to any one district in North Queensland, nor that all the work of the investigation would be undertaken in Townsville. The greater part of the work of investigation would be done in the University laboratories of Sydney, Melbourne and Adelaide, which had been placed at their disposal. It had been said that it would be difficult to find in Australia a qualified superintendent of the institute. That was probably true, but it was absurd to assume that the professional staffs of the universities were not fully competent to investigate the obscure diseases of tropical Australia. To quote Professor Anderson Stuart, the Dean of the Medical Faculty of Sydney, "Research necessarily precedes knowledge, and knowledge teaching and practice."

The Governor-General said that he would present their representations to his Ministers, and that, speaking for himself, he cordially approved of the scheme. He also thought that the control of the institute by the medical schools of the Australian universities would be found to be the most satisfactory form of administration.

Three Shining Lights.

By a remarkable coincidence the medical world has been preparing for three memorials in almost immediate succession, and as these landmarks of science are at the same time closely connected with the changed aspect of conditions in our struggle against pathogenetic influences, they offer the easiest way of getting an encouraging glance of the rapid progress made during the last 40 years.

One of these memorable events has been, on April 5th, the 80th birthday of Lord Lister, the inventor of the antiseptic method of surgical treatment. It was in 1869 that he announced his, at that time, wonderful results by means of a new principle of dressing wounds during and after a surgical operation. The greatest drawback of surgical art in the shape of infection and blood poisoning was suddenly reduced to a minimum when Lister's method of applying the spray with a solution of carbolic acid and of using disinfected bandaging was generally accepted. There was no need any more for despairing on account of the unavoidable pollution even in cases where only operations on the intestines or on the brain offered a fair chance of curing a disease. The knife of the surgeon became in the new epoch of antiseptic treatment the principal restorer of human health. Justly is Lord Lister now celebrated as one of the greatest benefactors of mankind. His treatise on the "Principles of Antiseptic Surgery," which he dedicated to Professor Virchow in 1891, will for ever remain a monument of medical progress. In all civilised countries medical men have been co-operating to testify their appreciation of Lord Lister's life-work on the happy occasion of the octogenarian's birthday.

On the basis so happily laid in 1869 science made further progress. In many cases the disinfectants originally used by Lister or proposed by others proved more or less dangerous or annoying on account of their poisonous nature. It was a great advantage when it was proved that with such harmless preparations as sterilised water and a solution of common salt the same immunity from infection may be reached, if sufficient care is taken that the operating room, the surgical instruments, sponges and bandages are thoroughly freed from infectious germs. Thereby aseptic treatment could supersede the various antiseptic precautionary measures. It was Ernst von Bergmann, who, with a number of enthusiastic pupils, founded the now prevailing doctrine of asepticism. By his experience on the battlefields of Bohemia (1866), France (1870-1871), and the Balkan Peninsula (1877-1878), he arrived at the conclusion that fresh wounds caused by rifle shots are always aseptic, and that their safest cure is guaranteed by the immediate application of a scrupulously clean piece of bandage. By prohibiting the use of the surgical probe on the first line of medical outposts he has taken away a great deal of the horrors of the battlefield. In the Russo-Japanese war the percentage of successful treatment, especially of wounds in the joints, was surprisingly large, principally on account of the adoption of Bergmann's teaching by the army surgeons on both sides. As the most prominent of contemporary surgeons, Professor Ernst von Berg-

mann of the medical world to lend word to the appreciation of Lister's epoch-making discovery. But a cruel fate suddenly took him away on March 25th. Everywhere in the centres of learning in memoriam solemnities for this master of modern surgery have taken place. It may be mentioned that Bergmann was also the organiser of the Berlin Association for a permanent medical emergency service that has become the model for many large cities, and he also originated the courses for practitioners that are so important for keeping them abreast of the latest advance of science.

On the day before the unexpected news of Bergmann's death came from Wiesbaden, at a casual Berlin meeting of medical men the idea of another commemoration was suggested. It was exactly 25 years on March 24th that Robert Koch had read his paper on Tuberculosis before the Berlin Physiological Society. Some members who had been witnesses of the surprise then caused by his demonstrations gave some particulars of his extremely modest way in announcing his results and his final expression of hope that his new methods of making bacteria visible by specially-adapted materials for giving them a distinguishing shade of colour, as well as his preparations for cultivating them on gelatinous decoctions, might lead to the discovery of the germs of other parasitic diseases. Now, even a superficial glance of what has been achieved by Koch's methods during the last quarter of a century proves quite a series of unparalleled successes. The active causes and propagators of cholera, tetanus, lupus, syphilis, the bubonic plague, malaria, and the sleeping disease have been discovered. Ever since Koch's lecture on March 24th, 1882, medical men have become accustomed to look for bacilli as the bearers of epidemic diseases; bacteriology has become a most important branch of medical research. As Robert Koch not only showed the way for these new lines of study, but also remained at the head of all investigators in this branch, a "Robert Koch Memorial" for the advancement of bacteriology was proposed in his honour.

Thus the international meeting of surgeons during the past Easter days almost coincided with three personal events: the jubilee of the world-famous octogenarian Lister, the obsequies of the acknowledged chief of the surgical profession, Ernst von Bergmann, and the inauguration of a "Robert Koch Memorial Fund" for the encouragement of future discoveries.

Bi-Centenary of Linnæus.

THE bi-centenary of the birth of Linnæus was celebrated in Sydney on May 23rd by a gathering of scientific men at the Linnean Hall, Elizabeth Bay. The meeting was arranged at the invitation of the Royal University of Upsala and the Royal Swedish Academy of Stockholm, both of which were celebrating the occasion by an international gathering of scientific men. The invitations to be present were written in Latin on parchment, and the reply by the Linnean Society was similarly couched. Mr. A. H. S. Lucas, M.A., B.Sc. (president of the Linnean Society), occupied the chair, and introduced the subject.

Mr. Lucas said that that day and the next had been set apart for a worthy celebration of the bi-centenary by the University of Upsala and the Royal Swedish Academy. His special contribution to the proceedings was "The Predecessors of Linnæus" in biological science. He acknowledged the work of Aristotle, Pliny, Ray, and Willoughby. He pointed out that the hunter and the fisherman to be successful must study the habits of the animals they seek, as the historian

studies plants for food and economic purposes. He submitted some rare old books, which indicated early research into nature.

Mr. H. I. Jensen, B.Sc., narrated the history of the scientist from the personal standpoint. Professor Haswell, D.Sc., spoke of Linnaeus, the man of science, and explained that the naturalist had builded better than he knew. He had by his valuable work prepared the way for the acceptance of a theory of evolution.

Mr. Maiden dealt with the botanical aspect of the topic, "Linnaeus as a man of science," and pointed out that while Linnaeus was a naturalist in the broad sense—botanist, zoologist, and mineralogist—it was as a botanist that his reputation was greatest. Linnaeus in the year 1735 promulgated his system of classification, based on the organs of reproduction of plants. It was especially handy for the naming or cataloguing of plants. This was an artificial system, although it was found that Linnaeus craved after a natural system, which was developed by his successors. In his "Genera Plantarum" (1737) he defined genera, while in his memorable work "Species Plantarum" (1753) he introduced the grandly simple binomial system—one name for the genus, one for the species—which in the belief of some eminent men constitutes the best service he rendered to natural history. Linnaeus was the embodiment of method. He was a born classifier and tabulator, and would have made an ideal statistician. He had a wonderful knack of consolidating and elucidating the discoveries of his predecessors.

Mr. C. Hedley said the greatest work of Linnaeus was the "Systema Natura." Even to-day this famous book is indispensable in a biological library. His qualifications for his task were arduous exploration under the Arctic circle, travel through civilised Europe, personal intercourse with the foremost of his contemporaries, deep study of the writings of his predecessors, and, most of all, a close examination of actual specimens. He is said to have studied and dissected eight thousand species of plants. Linnaeus influenced science more by organisation than by investigation.

In the course of an address on the contemporaries of Linnaeus, Professor Wilson, M.B., Ch.M., said that Descartes and Leibnitz, Hume and his critic Kant, were to be recognised in the scientific and philosophic developments of the 18th century, and in the growth of biological thought. He referred to the French side-current of scientific advancement. Voltaire, the most brilliant contemporary of Linnaeus, shared with Rousseau the equivocal glory of having laid the intellectual foundations of that social and political propaganda whose later outcome was the French Revolution. Diderot and d'Alembert, authors of the "Encyclopædia of Science and Philosophy," and Reaumur, who wrote a "History of Insects," were contemporaries, but the outstanding figure was that of Buffon, the French naturalist, who was born in the same year as Linnaeus, and survived him by ten years. The Professor concluded by stating that it had been well said "that modern classificatory method and nomenclature have largely grown out of the work of Linnaeus, and the modern conception of biology as a science, and of its relation to climatology, geography, geology, are as largely rooted in the labours of Buffon."

Mr. J. J. Fletcher (secretary to the Linnean Society) pointed out that the hub of the scientific universe was transferred from Sweden to France for some time after the death of Linnaeus. The work of the botanist was carried on by his son, whose death at the age of 42 ended the male line of the family, and his two pupils,

Murray and Gnielen, whose object was to keep the *Systema Naturæ* up to date. Bernard de Jussieu, 1699-1777, and his notable nephew endeavoured to develop the natural method, and their work was the prelude to the transfer of the scientific centre of gravity from Upsala to Paris in the early part of the nineteenth century. The younger de Jussieu arranged the genera in 100 groups, and these were finally placed in the three high orders of the acotyledons, the monocotyledons and the dicotyledons. Other great botanists were Joseph Gartner and Robert Brown. The latter's study of the flora of Australia led to most important results. De Candolle, Lindley, Endlicher and Henslow carried investigations still further. Linnaeus was acquainted with 8000 species of plants, A. de Jussieu with 20,000, Brown with 4000 from Australia alone, and de Candolle with 80,000. Darwin was referred to substantially, and the writer pointed out that in his "Origin of Species" Darwin had treated of the natural system and classification in all its bearings in a most illuminating fashion.

Dr. H. G. Chapman dealt with the zoological successors to Linnaeus, and specially referred to Cuvier, who broke up the Linnaean system of classification of mollusca into four groups. The work of Buffon, Lamarck and St. Hilaire had also aided naturalists of modern days.

Mr. Henry Deane, M.A., F.L.S., referred to Sir J. E. Smith and the Linnean Society of London as being in a sense the heirs of Linnaeus.

Professor David, B.A., F.G.S., F.R.S., spoke on the subject of "The Linnean Society of New South Wales—the Choice and Significance of the Name." He mentioned that the Entomological Society of New South Wales was the forerunner of the Linnean Society founded in 1862. This early society published two little volumes, but it was recognised that the society's scope was too narrow in 1874. Sir William Macleay was the first president of the society, which was started through the efforts of Commander Stackhouse and Dr. Alleyn. The society first met at Lloyd's Chambers, 362 George-street. Professor Stephens chose the name. Sir William Macleay's great generosity in the endowment of research fellowships was referred to, and the professor recognised the valuable character of the naturalist's own work, particularly in connection with zoology. It was peculiarly fitting that Macleay, the nephew of the Hon. Alexander Macleay, once secretary of the Linnean Society of London, should inherit his uncle's great entomological collection, now in the University, and one of the finest in the world, and that he should become the first president of the society. The work of the society was devoted at first chiefly to the capture and study of fish. The early records of the society were destroyed in the Garden Palace fire. The first rule of the society provided the keynote of its work, which was "the cultivation and study of the science of natural history in all its branches," inspired with the spirit of truth and reverence in the face of the mysteries of nature.

Professor Jordan, president of the Leland Stanford University in San Francisco, said it was a pleasure to him to be there, particularly in view of the fact that a celebration of the same character was now going on in America. It was a perfectly natural thing for them to honour Linnaeus, but he thought a little more might have been made of the work of Peter Artedi, the fellow-worker of Linnaeus. All that the latter knew of fishes and reptiles he learned from Artedi. Linnaeus's pupils also deserved more mention.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, Medical Officer of Health, reports for the month of May, 1907:—The deaths registered in the metropolitan municipalities numbered 537, exclusive of those in the Gladesville and Callan Park Hospitals for the Insane. The mortality is once more high—higher in fact than has been recorded in the metropolis in any month since June, 1904—and is equal to an annual mortality rate of 11·60 per 1000 of the estimated mean population. When corrected by the inclusion of the metropolitan proportion of the deaths in all the benevolent and lunatic asylums in New South Wales, the death rate becomes 12·56 per 1000, which more accurately represents the true facts. The cause which was principally responsible for the high mortality was whooping-cough, which is exceedingly prevalent in the metropolitan area at the present time, and has been attended with considerable mortality among young children. No less than 54 deaths were attributed to its influence during May, all among children under six years of age. Unusually high mortality was observed also under the headings of cancer, respiratory diseases, and diseases of the heart and blood-vessels. Other infectious diseases than whooping-cough (exclusive of diarrhoea) were less fatal than usual. They caused 13 deaths, of which 3 were due to measles, 1 to influenza, 5 to diphtheria, 2 to typhoid fever, and 2 to plague. Diarrhoeal diseases, with a total of 27 deaths, were less fatal than they have been in any May for the past ten years. Phthisis caused a mortality of 42 (previous average for May, 39). Cancer was very fatal, with a total of 45 deaths, compared with a previous average of 29 for the month. Diseases of the heart and blood-vessels, with a total of 75 deaths, were more fatal than usual; and Bright's disease caused 29 deaths, which is about equal to the average for May. A higher mortality than usual was caused by respiratory diseases, which were responsible for 75 deaths, of which 22 were attributed to bronchitis and 44 to pneumonia. Deaths of infants numbered 116, which is equal to an infantile mortality rate of 98 per 1000 births. The previous average infantile mortality for May was 99 per 1000 births. The principal causes of infantile mortality were—whooping-cough 29 deaths, prematurity 22, developmental diseases 20, respiratory diseases 21, diarrhoeal diseases 15. Of the notifiable infectious

diseases, 167 attacks were notified. Scarlet fever accounted for 88, diphtheria for 55, typhoid fever for 22, and plague for 2. Typhoid fever was less prevalent than it has ever been in May since the establishment of notification. Within the city of Sydney 10 cases of pulmonary consumption were notified under the City Council's by-laws. Eleven dwellings were disinfected after the occurrence of deaths in them from consumption.

The Meat Supply.—According to a return furnished to the Board of Health during the month of April, 122,732 head of stock were slaughtered at the Sydney abattoirs, and 104,445 at 28 suburban private slaughterhouses. The abattoirs' total was made up of 6743 beeves, 1594 calves, 7188 pigs, and 107,207 sheep. Of them 72 beeves were condemned on account of tuberculosis and 5 as unfit for food; 377 calves were considered as unfit for food; 177 pigs were found to be affected with tuberculosis, and 5 were otherwise unfit for food; while 19 sheep suffering from tuberculosis were condemned. Of 4772 beeves slaughtered at suburban yards, 36 were condemned on account of tuberculosis, and 6 as otherwise unfit for food; while in other classes the condemnations were—Calves, 1 tuberculosis, 3 unfit for food; pigs, 60 tuberculosis, 20 swine fever, 2 pneumonia, 2 pleurisy, and 2 otherwise unfit for food; sheep, 71 unfit for food.

Sydney Water Supply.—Dr. E. S. Stokes, Medical Officer for the Board of Water Supply and Sewerage, reports as follows:—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city. May, 1907:—

Colour	14° Brown
Clearness	Marked
Odour	Nil.
Suspended matter	Very slight.
Total solids	8·1000
Chlorine	3·1500
Free ammonia	·0000
Albuminoid ammonia	·0120
Nitrogen as nitrites	·0000
Nitrogen as nitrates	·0063
Oxygen absorbed in 15 minutes	·0281
Oxygen absorbed in 14 hours	·0656
Permanent hardness	1·8
Total	2·8

NOTE.—Parts by weight per 100,000.

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during May, 1907:—

Final Effluents from—	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification.		Incubator Test. Seven days at 87° C
			Suspended Solids.	Chlorine.	Free Ammonia	Albuminoid Ammonia.	Nitrogen as		Oxygen Absorbed in		Albuminoid Ammonia.	Oxygen absorbed in Four hours.	
							Nitrites.	Nitrates	Three Minutes.	Four Hours.			
Chatswood ..	Faint	Nil	1·26	10·0	1·292	·180	·007	·403	·102	·575	87·8	75·8	No decomposition
Folly Point ..	Nil	Nil	1·38	10·0	1·03	·075	·014	1·767	·090	·400	95·1	90·0	„ „
Balmoral ..	M'k'd	Nil	3·06	11·7	3·705	·481	·000	·046	·473	1·269	73·2	70·6	Decomposed

Food Adulteration.—A deputation from the Country Storekeepers' Association waited upon the President of the Board of Health last month to urge an amendment of the food, drink and medicine clauses of the Public Health Act, so as to place the blame for adulterated commodities upon the manufacturers, and to make suggestions for the formulation of the standards of food, and the regulations covering the administration of the Act. They also urged an amendment of the Act to provide that samples of food products might be obtained by the manufacturers, and that in the event of adulterants being found in the samples prosecutions should follow. Dr. Ashburton Thompson said the Premier had signified his intention of introducing a bill to deal with the question of food adulteration, and the measure was being drafted. He suggested an agreement on the point of food standards. He did not think that a manufacturer should be prosecuted for adulterated foods bearing his name sold by a retailer. He could not understand why the retailer did not protect himself by getting a warranty from the manufacturer, nor did he see that such a process involved any difficulty. The best means at the command of the storekeeper for defending himself was a warranty from the manufacturer. If storekeepers paid a fair price for their goods they could depend upon getting a fair article. As to the request that the bill should include a form of warranty on the lines of the United States Act, he said the question was one for lawyers to discuss. It appeared to him that there was always the point that the retailer had the opportunity to adulterate goods after they came into his possession. No doubt in the near future the name of the manufacturer, as well as that of the retailer, would be upon each packet. Under that arrangement any number of different brands from the same manufacturing establishment would be registered. There were many matters of detail which could not be put into an Act of Parliament, but which would have to be provided for by regulation, and he hoped that the contemplated bill would be such as to enable the authorities to deal with all questions that might arise as to food adulteration.

Victoria.

Infectious Diseases.—For the fortnight ended May 18th the cases of typhoid reported for the whole State numbered 57 with 5 deaths, the average for similar periods of the past four years being 110 cases with 6 deaths. The improvement was principally in the country, the figures for the metropolitan area being 24 cases with 2 deaths, as against the average of 30 cases with 1 death. The number of cases of diphtheria reported throughout Victoria was 73 with 3 deaths. Scarlet fever showed a marked decrease, from the average of 98 cases with 1 death to 12 cases with no deaths for the whole State, and from 59 cases with no deaths to 8 cases with no deaths for the metropolitan area.

Bubonic Plague.—The first true case of bubonic plague in Victoria was for two days treated at the Melbourne Hospital, and the patient was subsequently removed to quarantine at Coode Island. The patient was a young man, a steward on board the steamer *Arawatta*, which arrived in Melbourne from Sydney on May 17th. He was carefully examined, and after being treated allowed to leave. Next morning he again visited the hospital, his condition having become much worse during the night. He was examined by the superintendent of the institution, who caused him to be isolated. After examining serum

taken from one of the glands in the groin, Dr. Mollison, the Government Pathologist, stated that he was suffering from bubonic plague. The patient said when he left Sydney he was in his usual good health. It was not until the vessel was well on her way to Melbourne that he noticed the swelling of his groin. Dr. Robertson, acting chief medical officer of the Board of Public Health, stated that evidently the patient contracted the disease at Sydney prior to joining the ship. The patient died, and no other case has been reported up to date.

Typhoid Fever in Melbourne.—The Health Inspector has discovered shocking neglect of ordinary health precautions at two dairy farms at Heidelberg. For some time he has been searching for the cause of water in the Yarra carrying typhoid germs, which have been revealed by an outbreak of typhoid at Prahran, traced to a dairy that used water from the Yarra for washing its utensils. The inspector found that the carcasses of six cows and a calf had been partly buried in a bed of a creek that runs through the farm to the Yarra. In one or two cases the bodies had simply been thrown into the creek, where they were lying in an advanced stage of decomposition. On the next farm three carcasses of cows partly buried were found in the creek, and close to them were drinking places for other dairy cows on the farm. The public have thus had to run the risk of infection either from water that passed into the Yarra or from milk supplied by the farms to the public. It is stated that owing to divided authority no provision had been made for inspecting these dairy farms.

Diphtheria is reported to be very prevalent just now in Victoria, and there is a prospect of considerable trouble in dealing with patients. The Melbourne Hospital has all its available accommodation already overtaxed, some 56 cases being now in the institution.

Tasmania.

Infectious Diseases Hospital.—At a meeting of the local Board of Health, Hobart, last month, the Chief Secretary (Hon. J. W. Evans, C.M.G.) forwarded a copy of a communication received from the Chief Health Officer relating to the provision of an infectious diseases hospital for Hobart and vicinity. The pressing need for an institution of the kind called for prompt action, and he trusted there would be no further unnecessary delay on the part of the local authorities in coming to a definite decision. Dr. Elkington was prepared to certify that it was necessary to provide, equip and maintain a hospital suitable and sufficient for the reception and treatment of patients suffering from infectious diseases, and he recommended, under section 43, that the local authorities of Hobart and adjoining districts combine in providing and maintaining a common hospital for the above purpose. The Government had expressed complete willingness to subsidise such a hospital to the extent of the money still available from a parliamentary vote made for that special purpose some years ago, but the project had been delayed solely by the inability of the local authorities concerned to agree upon a suitable site. Ultimately the matter was left in the hands of the Health Officer to take the necessary steps. The committee appointed by the conference of city and suburban health authorities, for the purpose of selecting a site for an infectious diseases hospital, has recommended the property in Macquarie-street, Hobart, known as "Vauluse," as

the most suitable site available. At a special meeting of the local authority of Hobart it was unanimously resolved to adopt the recommendation of the committee, and to purchase this property for £3500. The land comprises an area of some 32 acres, and is bounded by Macquarie-street, Gore-street, the Hobart Rivulet, and private property, with frontages of 340 feet and 478 feet on Macquarie and Gore streets respectively. There is a large residence on the property, and about one-half the land has for some time past been let as a market garden. The site has been recommended by the City Health Officer (Dr. Sprott), and approved of by the Chief Health Officer (Dr. Elkington).

Notification of Pulmonary Tuberculosis.—

A deputation from the Women's Health Association recently waited on the Premier to request that action should be taken to bring cases of consumption under the compulsory notification clauses of the Public Health Act. The Premier promised to consider the matter from the standpoint of practical working.

South Australia.

Health of Adelaide.—The Medical Officer of Health reported that during the fortnight ended May 25th seven cases of typhoid fever, three of diphtheria, three of scarlet fever, one of erysipelas, and seven of pulmonary tuberculosis were notified. Of the seven cases of typhoid fever, four were imported from the suburbs and country for hospital treatment. The remaining three cases were removed to the hospital for isolation and treatment. All the cases of diphtheria were imported from the suburbs and country for hospital treatment. Of the three cases of scarlet fever, two were imported from the country for hospital treatment. The remaining case was isolated at home. The case of erysipelas was removed to hospital for isolation and treatment. Of the seven cases of pulmonary tuberculosis, five were imported for hospital treatment and one was ill before coming to live in the city. This and the remaining case were at home under the city trained nurse's supervision. The city trained nurse has made 104 visits to 62 cases during the fortnight, and finally disinfected nine houses. Of the 62 cases under her care, four were suffering from typhoid fever, four from scarlet fever, one from erysipelas, six from measles, and 47 from pulmonary tuberculosis. June 28th was fixed for the annual inspection of the city.

Vital Statistics.—The vital statistics for March showed that there were in South Australia 730 births and 278 deaths. The birth rate, '192, was the lowest for six years, and next to it came '195 in 1906. The death rate, '073, was also the smallest in the March records. The next lowest was '079 in 1902, but in March, 1906, the rate was '087. In the city of Adelaide proper the death rate was the highest since 1903, when it was '170, or '003 more than in March of this year. During the month the births totalled 75, and exceeded the deaths by only 8. The population of the State, exclusive of the Northern Territory, on March 31st was 381,495.

Queensland.

Brisbane City Council.—At the meeting of the Brisbane City Council, held on June 3rd, the

General Purposes Committee reported further consideration of the application from the committee of the Hospital for Sick Children, that the detached triangular portion of Victoria Park, situated between Herston and Victoria Park roads, might be set apart for the purposes of that hospital. The committee reported that the application in its entirety was not viewed favourably, but it was recommended that a reply be made that the council was agreeable to an area of two acres (a portion of the triangular block applied for) being granted for hospital purposes at the expiration of two years from date, on condition that in the meantime a sum of not less than £3000 be expended on the land in the erection of hospital buildings, and that should the Government close that portion of Herston-road lying between the hospital grounds and the present park fence, sufficient land for a new road of equal capacity shall be taken out of the land which it was proposed to grant to the Hospital Committee, such new road to be made, formed and metalled to the satisfaction of the Council, and at the expense of the Hospital Committee. This report was agreed to. The Health Committee reported that the matter of nuisances caused by smoke and soot had had further consideration. The committee recommended that the Legislative Committee be requested to frame a by-law for the prevention of any emission of soot or ashes from the smoke-stack or furnace of any factory or premises other than a private dwelling, in such a quantity as to be a nuisance to persons resident in the locality. The committee had, as directed, given further consideration to clause 2 of its report of March 5th, which was referred back, re-submitted its former proposal, but in a slightly amended form, as follows:—"That an amending by-law be passed authorising the construction and use of septic tanks in conjunction with water-closets, under certain conditions. The installation of a septic tank and water-closets upon any premises within the city area shall not be held to relieve such premises from the levy of a yearly cleansing rate." The report was adopted.

Rat Destruction.—According to the *Brisbane Courier* rats are very numerous just now, and the limited gang of the Health Department cannot possibly cope with the nuisance. Dr. Ham strongly recommends that householders should place chloride of lime in places frequented by rats. Besides being a wholesome disinfectant, chloride of lime is intolerant to rats, and they will leave any premises where it is freely used. The Health Department will supply chloride of lime at a small cost. The Government is spending large sums of money every week throughout the State on the destruction of rats, and while householders should be encouraged and helped in every possible way to keep their premises clean, the line should be drawn at encouraging them to be helpless in the matter. Dr. Ham is strongly of the opinion that, unless local authorities and householders fulfil their obligations in regard to rat-infested premises, regulations should be made compelling householders and occupiers of premises to destroy rats.

Bubonic Plague.—The Commissioner of Public Health reports:—Plague for fortnight ending June 8th, 1907.—Plague in Man: Remaining under treatment, 2; admitted during period, 4; died during period, 1; discharged during period, nil; date of attack of last case, May 31st, 1907. Rats destroyed, 922; mice, 158. Rats examined, 701; mice, 107. Rats infected, 3; mice, nil. The infected rats were found on

the premises of a grocer's shop in Edward-street, Brisbane. Date of finding of last plague-infected rat, May 31st, 1907. *Brisbane*.—Case 31: After an interval of 43 clear days a case of plague was reported from Wynnum, a seaside resort distant 12 miles from Brisbane. The patient, a schoolboy of 12 years, was reported after death only. On May 20th the post-mortem examination revealed the presence of a right submaxillary gland, which on examination was found to contain *B. pestis*. The boy had not visited Brisbane lately, but had been selling flowers at Wynnum and visited a general store where rats have been very numerous. A number of rats collected are now undergoing bacteriological examination. Case 32: R.R., male, 18 years, employed as a cook in a hotel, Queen-street, city; attacked May 24th; type, bubonic. Case 33: W.C., male, 17 years, employed as yardman and in the kitchen at same hotel as case 32; attacked May 27th; type, bubonic. Twenty dead rats have been found on the hotel premises during the past seven days. Two of these rats were found infected and ten were too decomposed for examination. The hotel and back premises have been cleansed and disinfected, and the drainage and other structural repairs are being attended to. *Ipswich*.—On May 23rd a girl aged 12 years was reported by the Health Officer at Ipswich as a case of bubonic plague. The patient resided with her parents on a farm near Amberly, about four miles west of Ipswich, and had been attending the local school every day up to the time of her illness. She had not visited Ipswich, where her parents kept a fruit shop, for the past six weeks. The fruit was obtained from the Turbet-street markets in Brisbane. Both the shop in Ipswich and the patient's home have been thoroughly searched for rats, but up to the present no plague-infected ones have been found. The case was a severe one of bubonic plague, with cervical glands. The patient lies at present in a moribund condition at the plague hospital, Brisbane. *Port Douglas*.—Early in May Dr. Chesson, Health Officer of the Department, in company with Mr. Beardmore, of the Bacteriological Institute, visited the Mossman district, Port Douglas, for the purpose of making investigation into the alleged cases of plague reported from that place since January last. Some 60 cases of so-called "pestis minor" have been reported by the local health officer at Port Douglas. In only ten of the above cases have bacilli morphologically resembling *B. pestis* been found by the Government Bacteriologist. After due and careful consideration of the clinical and bacteriological reports and other factors in connection with the cases the Commissioner of Public Health has decided to accept as positive of pestis the above mentioned ten cases only. There have been two deaths. The report of the departmental health officer is now available, and after a study of the cases which came under his observation, a careful inquiry into all the facts, the examination of a large number of rats, etc., he formed the conclusion that the Port Douglas and Mossman districts are free of plague. He states: "From the cases observed by me smear preparations were made and culture tubes and guinea-pigs inoculated. The bacterioscopic, cultural and inoculation tests were entirely negative of pestis." Case 34: H.T., male, 39 years, employed as telegraph operator, General Post Office, Brisbane, resided at Wynnum; attacked May 31st, reported June 1st; died at his home same day. A plague-infected rat was found at the G.P.O. in April last, and dead rats have been found during recent cleansing operations. No further case has occurred in any part of the State.

Plague in New South Wales.

SYDNEY.

SINCE publication of our last note on this subject (*Gazette*, April 20th) five further cases of plague have been notified. (39) L.G.M., male, *æ*t. 21, single, a clerk, who resided in a distant suburb, but was employed at importers' offices in the city, was attacked suddenly April 10th. He had found three or more dead rats during the week preceding that date at his place of employment, the last of them on April 9th. In this case a pustule was present on the right calf which yielded *B. pestis* on culture of its contents. (40) E.J.O'B., female, *æ*t. 27, married, a laundress, was attacked April 17th; the onset was marked, but rather more gradual than usual. She exhibited a left femoral bubo, films and cultures positive; no lesion of drainage area. In this case one eye was destroyed, the other seriously damaged; but the patient died about six weeks after attack and about one week after supervention of cerebral symptoms. She resided in a suburb where nothing suspicious was discovered; there were trifling signs of infestation at her workplace, which was in the city, but distant from other neighbourhoods previously mentioned in this connection. None of the clothes received at the laundry came from infected premises. The source of her infection has thus far not been identified. (41) F.W.P., male, *æ*t. 12, schoolboy, resided in Sussex-street, city, in the Darling Harbour area, and was attacked suddenly. He showed a left inguinal bubo, films positive; lesions of drainage area none (but there was an open wound inflicted with a nail on the left heel). He said he had seen dead rats on some vacant allotment on which he played, and plague rats had been taken in the vicinity. (42) P.J.O'D., male, *æ*t. 28, single, a shop assistant, who lived in a suburb, and was employed at a large draper's in the city, was suddenly attacked May 5th. He exhibited a right femoral bubo, films and cultures positive; lesions of drainage area, none (numerous pin-point hyperæmias, which may have been flea-bites; fleas numerous at his residence, to which no suspicion attached). His place of employment was in excellent order and free from signs of infestation, but rats could enter by a door to a back lane, and after a few days plague was identified in a carcase picked up in the basement. (43) C.W.S., male, *æ*t. 24, labourer in a produce store, Darling Harbour area, who lived in a suburb, was suddenly attacked May 19th. He had a left femoral bubo, films and cultures positive; lesions of drainage area none, except an abrasion of the shin, said to be three weeks old; he had also some slight, not tender, enlargement of a gland near the edge of the left pectoralis major, and many small wounds of the left hand. There was abundant evidence of rat infestation at his place of employment, but no recent history of dead rats was forthcoming, and no plague rat was there identified.

During the past two months extensive structural improvements have been made by the Harbour Trust to Circular Quay and to certain premises used in connection with the ferry service and otherwise. The same, it appears, cannot be said of that perennial centre of infection, the Darling Harbour wharf-line. A good deal of patchwork has been there done, but the Government and the subsidiary power which has authority in all respects over this locality seem as yet not to have seized the fact with which the readers of the *Gazette* have so long been familiar; namely, that as long as it offers the harbourage to rats which its very defective waterfront still abundantly furnishes, so long must the infection persist in spite of the most strenuous

efforts to remove it by destroying the rats. But more than the water-front requires attention. It is true that during the past five years the Harbour Trust has built some new buildings, and reconstructed others in respects which have importance in this connection. But in some neighbourhoods the ground between these comparatively good buildings is still largely encumbered by sheds of a ruinous character, for which considerable rents are nevertheless paid. Under the persistent pressure brought to bear by the Board of Health, as recorded from time to time in these columns, certain piecemeal improvements have been made. But it will be suspected from what has already been said that the improvements have been due to that external pressure, and have not resulted from intelligent apprehension by the Trust of the simple, and now popularly known facts concerning the causes of epidemic plague. We are tempted to enquire, therefore, whether the great and thorough improvements which the Harbour Trust have now made at Circular Quay would have been as promptly and completely carried out had not case 35 (*Gazette*, April 20th) occurred, in connection with ferry premises, and had not plague rats been found about the same time in the clerical offices of the Trust itself? However, we refrain from ascribing to the feelings of panic-stricken officials rational actions which the springs of public spirit and grave public responsibility are more than adequate to produce.

HOSPITAL INTELLIGENCE.

Queen Victoria Homes for Consumptives, N.S.W.—The annual report of this institution submitted at the annual meeting of subscribers held on May 27th, after making reference to matters of administration, made mention of the donations, bequests and Government grants during the year. Mr. and Mrs. Hugh Dixon had given £2000 to establish a ward of six beds at King's Tableland and another ward of four beds at Thirlmere. Mrs. Allen Taylor, as Lady Mayoress, at the close of 1906, had handed over £2715 15s 6d, on behalf of ladies, to provide modern and adequate accommodation for women consumptives. Other amounts acknowledged were:—£500 from the executors of the estate of the late Mr. E. J. Vickery, £225 from the Hospital Saturday Fund, £50 Christmas donation from the Governor-General, £50 from the Queen Victoria Sanatorium Aid Society, and £1850 Government grants for building purposes. Mention was made that Miss Margaret Harris had undertaken to furnish one of the large wards at Thirlmere. Having established a Women's Home capable of receiving and treating some 150 patients annually, a much larger outlay than formerly was entailed, and necessitated a large increase in the number and amounts of annual subscriptions. At the King's Tableland Home the daily average number of beds occupied was 45, and the total number now available was 48. The grounds and orchard had been improved, and the garden was supplying the home with vegetables. The reservoir was now in excellent condition, and afforded an ample supply of water for the home. The acetylene gas had been installed, and was highly satisfactory. Considerable progress had been made during the year in the work of converting the main pavilion at Thirlmere into a modern sanatorium, and in the erection of new buildings for the accommodation of the medical and nursing staffs, and a day shelter for the patients, the establishment of a better water service, a laundry, a septic tank, etc. It was expected that the whole of the works in progress would be completed during 1907. The orchard and vegetable garden continued to supply

the home with fruit and vegetables. A patients' walk had been graded, and an extensive avenue of trees planted. The daily average number of beds occupied was 30, and the total number now available was 31. Dr. M. McIntyre Sinclair, resident medical superintendent, submitted reports concerning both Thirlmere and King's Tableland. He explained that the full system of treatment at Thirlmere had been necessarily incomplete owing to the new buildings and accessories not being in final order. On January 1st, 1906, 32 patients were in residence, and on December 31st, 31. The number of patients admitted during the year was 54 (52 females and 2 males under 12 years); the number discharged 55, and the average daily number of beds occupied 30. Of 55 patients discharged, 46 were improved, 5 unimproved, and 4 died. The average residence of discharged cases, 222½ days. At King's Tableland 101 cases had been admitted to the home, and 100 discharged. Forty-four cases were in residence on December 31st, 1905, and 45 on December 31st, 1906. The average daily number of beds occupied was 45. Forty-eight beds were available for treatment at the end of the year. Most of the patients had followed indoor trades and occupations. The treatment adopted in all cases was the open-air or sanatorium system on the principles laid down by Bodington, Brehmer, Dettweiler, and Walther. Wright's method of calculating the specific resistance to the bacillus by means of the opsonic index had recently attracted much attention, and observations on this method were now being carried out at the home. The average residence during treatment of all cases was 150½ days. The average residence of 55 cases which proceeded to complete arrest of the disease was 147½ days. Increase of weight occurred in 91 per cent. of the cases treated, the amount added varying from 1 to 36½ lb., and averaging 14 lb. each. The average increase in 55 arrested cases was 16½ lb. The principal predisposing factors were influenza, pneumonia, dusty and indoor occupations, and, in a few cases, alcoholism. A history of probable infection was traced in 24 cases—14 from members of the same family, and 10 from fellow-workmen or other persons in close association with the patient prior to the commencement of his illness. A particularly gratifying feature of the year was the increasing interest taken in the work by the physicians of the Prince Alfred and other Sydney hospitals, who had exceptional opportunities for detecting the disease in its earliest stages.

Sydney Hospital.—At the monthly meeting of the board of directors, held on May 28th, the accounts for May, amounting to £1980 7s 11d, were passed for payment. Four hundred and twenty-three patients were admitted to the general wards, 210 operations were performed, 1221 new cases were treated in the various branches of the outpatients' department, and 1145 accidents and minor cases were attended to in the casualty department. The number of attendances of old and new patients in the outpatients' department reached 10,742 for the month. Mr. Thomas Rooke and Mr. V. Unmack wrote accepting office as hon. consulting electrical engineer and hon. masseur and demonstrator of massage respectively. Dr. W. H. Read wrote resigning his appointment as hon. assistant skiagrapher. The hon. treasurer reported the receipt of £7000 from the Government towards the rebuilding of the south wing. A report was read from Mr. S. H. Barraclough and Mr. A. J. Gibson, of the Sydney University, on a proposition which has been made to install a "Producer gas" plant to generate gas firing for the boilers. The question was referred to the house committee for consideration. Sir Henry Stephen was unanimously elected a member of the board of directors.

Launceston Hospital, Tasmania.—The new operating theatre at the General Hospital is in process of construction, under the supervision of the architect, Mr. T. Searrell. It is being built partly around and above an existing brick building used as the nurses' quarters and kitchen. The new building will be composed of steel, concrete, terra cotta, timber and brick. The girders are of steel, the walls of terra cotta, lumber or brick, and the principal part of the floors of reinforced concrete. The frames for the doors are of steel and polished cement. There is no angle in the building; everything is rounded. Most of the staircase is of steel and Mintara slate. The theatre will be fitted with an Otis lift from Melbourne. Five different contracts in connection with the theatre have been let—for plastering, plumbing, electric installation, and brick-work.

Consumptives' Sanatorium, Tasmania.—A meeting of the subscribers of the Tasmanian Sanatorium for Consumptives was held last month to revise the constitution of the association. Mr. R. Mather was voted to the chair. The clauses of the constitution were then taken up *seriatim*, and, where necessary, amended. The most significant alterations were the excision of the clauses constituting a general committee, and the recasting of the remaining clauses in such a manner as to confer the powers of that committee on the executive committee. It was also provided that the general meeting of subscribers should be held in July instead of in January, as was directed in the original draft of the constitution.

Queen Victoria Hospital for Women and Children, Melbourne.—The committee of the Queen Victoria Hospital for Women and Children is making an appeal to the women of Victoria for increased assistance. This hospital was founded ten years ago as a memorial of the late Queen's jubilee, and is the only one in Australia of which the medical staff is entirely composed of women doctors. The original appeal to provide funds for its foundation resulted in the raising of the sum of £3500 by means of a shilling fund. In 1898, the first full year of the hospital's existence, there were only 952 attendances of patients, while last year there were not less than 14,534. This growth in the work of the hospital has produced a serious strain upon its very limited resources. The wards urgently require renovation and enlargement, and better accommodation for the nursing staff is urgently needed. A separate committee has been formed to institute the Queen's Shilling Fund, and sub-committees of bodies are now being instituted in each municipality to take in hand the work of collection of funds. So far the response has been most gratifying. It is hoped that a substantial sum may be collected, enabling the hospital to cope with the constantly increasing demand upon its services.

The Women's Hospital, Sydney.—At the usual monthly meeting of the board of directors of the Women's Hospital last month the hon. treasurer's financial statement showed a bank overdraft of £469 9s 9d; cheques were drawn at this meeting for £229 19s 9d, leaving a bank overdraft of £699 9s 6d. The matron's report for the month of April showed patients treated, indoor, admitted 41; discharged, 36; remaining in the hospital, 27 and 10 infants. Births, indoor, 23; outdoor, 34. A total of 57. One hundred and three patients were treated at the out-patients' department.

Women's Hospital, Melbourne.—The inadequacy of the accommodation at this hospital to meet the demands made upon it having been brought under the notice of the Lady Mayoress, a meeting of the mayors and mayoresses of the metropolitan suburbs and chief centres and of ladies and gentlemen interested in benevolent and philanthropic endeavour was convened at the Town Hall last month. The president of the hospital stated that portions of the building were completely out of date. The hospital was founded in 1856 primarily for the treatment of midwifery patients only, but at a later stage an infirmary department was added, and extensive alterations would have to be made all round if the hospital was to cope with the demands made upon it. The hospital was the only one of its kind in the State for teaching students, but so limited was the accommodation for them that only two or three could be taken in at a time, and many had to wait a very long while before they could acquire the desired experience. The nurses' quarters were very bad. The kitchen was deficient in conveniences. Meals had to be carried by the servants from one end of the building to the other. In the midwifery department many of the women admitted were homeless, and if only for the preservation of the infant life of the community more room should be provided in this direction. The infirmary department was so constructed that weak and ailing women had to be dragged upstairs to be attended to. There were about 200 women now waiting to get into this portion of the hospital on account of the lack of room. The Lord Mayor said it had been decided to establish a shilling fund. If every woman in Victoria sent a shilling the total sum would be sufficient to enable the committee to carry out its building proposals. The nurses' quarters and the infirmary and outpatients' departments were estimated to cost £7500. Assistance from the Government or elsewhere would have to be sought in connection with the erection of the other block. Resolutions were passed expressing sympathy with the committee of the Women's Hospital in regard to the necessity for additional accommodation at the hospital. Those present formed themselves into an appeal committee, to use their best efforts to raise the funds required. The Lord Mayor was appointed hon. treasurer of the fund. In responding to a vote of thanks for the use of the hall, the Lord Mayor said it was the desire of the Lady Mayoress to raise at least £10,000 for the hospital.

Melbourne Hospital.—Some discussion took place at the meeting of the Melbourne Hospital committee on June 11th on a proposal for the appointment of medical and surgical registrars. The Chairman, in bringing the matter under the notice of the committee, read a letter from Professor Allen, of the Melbourne University, in support of the proposal, and detailing the special duties which might well be performed by the registrars. He pointed out that registrars formed a part of the staff of most modern hospitals, and stated that in the Prince Alfred Hospital, Sydney, the two best resident officers of one year became the registrars in the succeeding year, and the better of the two was appointed the medical superintendent. Dr. Moore said he had specially inquired into this matter on a recent visit to Sydney, where they had registrars in both the Sydney and Prince Alfred Hospitals. It was the practice in Sydney for the medical superintendent to stay about three years, and the resident officer who gave most promise of fitness for the chief executive position was appointed. They

did not keep the medical superintendent for an indefinite period as they did in Melbourne. He moved that a committee of three be appointed to meet a like number from the members of the medical staff to draw up a scheme for the appointment of registrars. The proposal was agreed to.

Beaconsfield Hospital, Tasmania.—A deputation consisting of members of the Beaconsfield Hospital Committee was introduced to the Attorney-General at Beaconsfield on June 7th. The deputation informed Mr. Propsting that the Hospital Committee wanted to erect new nurses' quarters, and to install a hot water service throughout the institution. In previous years the Government had subsidised the institution to the extent of £250 annually, but now the amount provided was only £200. They had altered their method of collection, and all mine employees now subscribed a weekly amount. The hospital served a district with a population of more than 6000 people, which included George Town and Leftroy. Moreover, the management received no payment from the Government for paupers, as did the Devon Hospital. The deputation asked that half the amount to be expended on the nurses' quarters and on the hot water service might be voted by Parliament if the committee raised the other half. Immediate assistance was necessary. Mr. Propsting, in reply, stated that the matter would receive careful consideration. He could not promise that the subsidy would be reinstated, but assisting a committee which offered to help itself was a matter for sympathetic consideration.

Adelaide Hospital.—At the last meeting of the board of management of the Adelaide Hospital the medical report for three weeks showed that 151 cases were admitted, 134 discharged, 15 died (including 2 at the consumptive home), now in hospital 223, in consumptive home 43, and 4 in the infectious diseases block. There were 1162 patients treated at the out-patients' department, of whom 241 were new; 110 massage and battery patients were treated. Causes of death:—Cholelithiasis, carcinoma of sigmoid, carcinoma of stomach (2), chronic nephritis, meningitis, eclampsia, pulmonary tuberculosis (2), puerperal septicaemia, calculous nephritis, intestinal obstruction, pneumonia, febrile enterica, and aneurism of aorta.

MEDICAL NOTES.

University Dental Association.—At the recent annual reunion and dinner of the dental graduates and undergraduates of the University of Sydney, Mr. B. W. Neave, B.D.S., president of the University Dental Graduates' Association, presiding. Mr. A. P. B. Dolan, B.D.S., in proposing the toast of "The University Dental School," referred to the obstacles that it had overcome during the six years of its existence, and gave it as his opinion that the school needed to be made more widely known, not only in the other States, but even in New South Wales. Professor Anderson Stuart, in replying, related some of the difficulties the school and he, as its founder, had had to contend with. He hoped that the English recognition of the Sydney dental degree would not now be long delayed, and also that the erection of the present department into a faculty would be accomplished at no distant date. It was desirable that the status of the dentist should be raised. They should insist on

the general culture as well as the sound scientific training of the dentist. The entrance examination which the Dental Board of New South Wales had promised to impose would be a step in the right direction. Mr. J. H. Bradley, B.D.S., proposed "The Teaching Staff," to which Dr. R. Fairfax Reading replied. The toast of "The Guests" was proposed by Mr. E. H. Grosse, B.D.S. Professor Welsh, in replying, said that the year had been a memorable one in the history of the school, both from the number of its graduates and the fact that though so young it had been able to institute a successful post-graduate course.

St. Vincent's Hospital, Melbourne, Shilling Fund.—This fund is now established in the city and several of the suburbs. The response has been most satisfactory, the total amount from this source being £820. Those who have undertaken to contribute a shilling a month are now being asked to endeavour to secure four friends who will also give a shilling each, and thus form a circle of five, which means 1s from the Government. In this way the total number of monthly 5s collectors would be increased, and a substantial return might be anticipated. Those who have not already assisted are requested to do so before the close of the financial year, June 30th, as it is then the hospital puts in its claim for the first £500 promised by the Government. To claim this amount the hospital must have received from the public the sum of £2500.

St. John Ambulance Association.—A circular letter addressed to the various municipalities has been issued by the St. John Ambulance Association in Melbourne, stating that the work of the association has increased to such an extent that it has been found necessary to purchase a fourth ambulance carriage at a cost of £140, and increase the cost of service by over £200 per annum. The work of the association is carried out by donations received from those who can afford to pay for the use of the carriages, by donations from the charitable public, and by grants from some of the municipalities and the railway department. It is suggested, in consideration of the work done in the various districts to which the circular is addressed, that a portion of the charitable votes of the councils which have jurisdiction over them should be voted towards the increased expenditure.

The Conscientious Objector.—A resident of Clifton Hill, Victoria, when taxed at the Collingwood Court recently with neglecting to have his child vaccinated, triumphantly produced a medical certificate pronouncing its unfitness from five to seven months. He claimed it was sufficient protection against the law, which requires vaccination to be done before the age of six months. He admitted that he desired to avoid the operation, and believed that such a certificate was quite adequate for the purpose. But the Bench, which has always strongly supported the Act, disregarded it, and fined him 40s.

Cremation in South Australia.—The crematorium in the West Terrace Cemetery, Adelaide, was availed of for human incineration for the eleventh and twelfth occasions in its history last month. The remains of Mr. John Elliott, a Broken Hill pioneer, were cremated on May 18th. The furnace was lighted at 9 a.m., and the coffin was placed in the receptacle at 4 o'clock, the incineration occupying about 40 minutes.

Next day the ashes were interred in a portion of the crematorium reserve by the side of those of the late Dr. Wyld, whose body was cremated four years ago. On May 20th the body of the late Mr. David Fleming, who had been for many years connected with the South Australian railway service, and who had also taken a deep interest in scientific matters, was cremated. The incinerating chamber had not cooled down from the former process when the fires were again lighted at 5 a.m. The coffin was committed to the chamber at half-past 11, and the cremation proved the most rapid and effective in the history of the crematorium. In the afternoon the ashes were removed and buried in the Walkerville Cemetery. The curator at West Terrace (Mr. H. Guy Mildred) supervised the ceremonies.

New Lazarette for Queensland.—A proclamation has been published under the Leprosy Act appointing a part of Peel Island, Moreton Bay, together with the buildings, to be a lazarette for the reception and medical treatment of lepers. The site, on which buildings have been just erected, has an area of 160 acres, and is described as follows:—"Commencing at high-water mark on the north-west shore of Peel Island at a point bearing 335 deg. and distant one chain from a tree marked L.R. over broad arrow, from which the black beacon bears 4 deg., and bounded thence on the south-west by a line bearing 155 deg. 49 chains; on the south-east by a line bearing 65 deg. 32 chains and 66 links; on the north-east by a line bearing 335 deg. about 54 chains to high-water mark aforesaid; and thence by high-water mark bearing south-westerly to the point of commencement." Dr. Row, superintendent of Dunwich Asylum, has been appointed medical superintendent of the lazarette.

The Macedon Sanatorium for Consumptives.—In view of certain serious complaints made of the management of the Victorian Sanatorium for Consumptives at Macedon (says the *Melbourne Age*) the Inspector of Charities, Mr. Short, recently visited the institution, and in consequence of his report the committee have made some changes. He found that there were 35 paying patients, 15 contributing patients and 12 free patients, and pointed out that this was not a proper ratio. As a result there were now 24 beds for paying patients and 36 beds for contributing and free patients. He also found that the paying patients were better treated than the poorer patients, and the committee had remedied that, having given instructions that no distinction was to be made. Mr. Short considers that in a charitable institution there should be no full paying patients, as those who can afford to pay four guineas a week can go to a private sanatorium.

The Victorian Board of Health have resolved to advise the Minister to recognise the services of Drs. Robertson and Reid, members of the board's staff, in connection with the recent fatal case of bubonic plague.

Informal meetings for the reading of abstracts of scientific papers in physiology and in pathology from current medical literature will be held in the Practical Pathology Class Room, University of Sydney, from 4.30 to 6 p.m., on alternate Thursdays during Trinity Term, viz., 27th June, 11th July, 25th July, and 8th August. Any practitioner of medicine who may care to attend is invited to do so.

PERSONAL ITEMS.

Dr. G. E. Rennie, of Sydney, has been elected a Fellow of the Royal College of Physicians of London.

A memorial cross, subscribed for by friends, has been placed over the grave of the late Dr. J. T. Wilson in the Carr Villa Cemetery, Launceston. The memorial bears this tribute to the deceased:—"Erected by his fellow-citizens to mark their appreciation of an unselfish life and devoted work among the suffering and the poor."

Dr. Hamilton Kenny has resigned the post of medical superintendent to the Gympie Hospital, Queensland, and is proceeding on a trip to Europe.

Dr. Claude S. Browne has entered into partnership with Dr. H. W. Mason at Tumut, N.S.W.

Dr. F. D. Jermyn has left Mount Gambier (S.A.) on a three months' trip to Japan. His brother (Dr. W. H. Jermyn) has returned after a four months' visit to the same country.

Dr. Edgar Brown, of Montrose, Mintaro (S.A.), has obtained from the University of Cambridge the diploma of Public Health.

Dr. H. L'Estrange has left Charleville, Queensland, on a trip to Ireland. Dr. F. Clarkson will act as his *locum tenens* for 12 months.

Dr. W. B. Aitken, of Jamestown (S.A.), is taking a holiday trip to Noumea.

Dr. Aeneas Macdonnell, of Toowoomba, Queensland, recently left for a trip to England.

Dr. G. A. Copland, of Gore (N.Z.), was entertained at a farewell social and presented with several gifts, in token of the esteem in which he was held in Dunedin. The citizens' presentation took the form of a tea and coffee service, that of the Racing Club of a handsome gold sovereign case.

Dr. F. W. Woolrabe, one of the officers of the Queensland Public Health Department, who is at present on extended leave of absence, has obtained the certificate of the London School of Tropical Medicine. It is understood that he will return to Brisbane this month.

Dr. Herbert Chesson, health officer of the Department of Public Health, Queensland, has returned to Brisbane from Port Douglas. He has been elected a Fellow of the Institute of Medical Officers of Health of London.

Dr. C. S. Bowker, of Dungog, N.S.W., was on June 4th thrown from his trap. His head was cut, and he was severely bruised about the body.

On June 4th a dinner was given to Colonel Reuter E. Roth, D.S.O., at Paris House, Sydney, by the executive committee of the St. John Ambulance Association and the headquarters and district staff of the St. John Ambulance Brigade. Colonel Roth is leaving on a six months' trip to Europe. The Pickwick Club of Sydney has presented Colonel Roth with a gold stylographic pen and an illuminated address.

Dr. Harry Garrard, who has removed from Lismore, N.S.W., to Armidale, N.S.W., was the recipient of a presentation and send-off on the evening of his departure.

Dr. T. W. Corbin, of Adelaide, after serving the Loyal Albion Lodge, M.U., for a quarter of a century, has retired. On May 29th a social was held in his honour, and the brethren presented him with a liqueur stand in token of their esteem.

Dr. Herbert Lee, formerly of Wollongong, N.S.W., has returned from a trip to Europe.

Dr. T. P. McKell has removed from Mulwarrie, W.A., to Barraba, N.S.W.

Dr. Wm. Chisholm has been appointed by the board of the Royal Alexandra Hospital for Children, Sydney, to act as hon. surgeon during the absence of Dr. P. C. B. Clubba.

Dr. E. E. Moule, late of Nairne, Adelaide, has commenced practice at Kalgoorlie, W.A.

Dr. Joyce, of Kanowna, has decided to begin practice at Greenbushes, W.A.

Dr. D. D. Jamieson, late of Perth and Fremantle Hospitals, is practising at Laverton, W.A.

Dr. S. B. Davies, of York, W.A., has returned from a trip to the old country.

Dr. Palmer, a recent graduate of the University of Sydney, has been appointed R.M.O. to the Kalgoorlie Hospital, W.A.

Drs. Lotz and Anderson, of Fremantle, who are taking a holiday in Europe, have been asked to act as representatives of the W.A. Branch at the annual meeting of the Association in Exeter.

Dr. Hornabrook, Adelaide, will leave next month for England, and will be absent about 12 months.

Dr. C. L. Handcock has left Goulburn, N.S.W., and is now practising near Sydney.

Dr. H. S. Newland, of Adelaide, has returned from London by the steamer Commonwealth, of which he is acting as surgeon.

Dr. C. L. McCarthy, for many years health officer at Footscray, Victoria, who recently left on a trip round the world, is lying seriously ill in Rome. Dr. McCarthy contracted typhoid fever.

Dr. R. A. Meek, of South Brisbane, was operated on in St. Helen's Hospital on June 11th for appendicitis.

Mr. Melville Birks, of Adelaide, has been made a Fellow of the Royal College of Surgeons. Mr. Birks secured his M.B. and B.Sc. degrees at the University of Adelaide in 1903.

Dr. Fox, of Kiama, sustained a dislocation of the ankle on June 10th at "The Rest," Audley, near National Park, N.S.W. He had walked through a cutting and come to a gateway, and thinking he was upon the level roadway stepped out and fell a distance of 6 ft. Dr. Lamrock drove from Kogarah, about ten miles, and attended to Dr. Fox.

MILITARY INTELLIGENCE.

Giblin, Major Wilfred Wannostrocht, to be Lieutenant-Colonel Australian Army Medical Corps, Tasmania.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Allen, L. Lloyd, M.R.C.S., L.R.C.P., to be Junior Medical Officer in the Lunacy Department.
Drs. Kirkland, Rice and Gibbes to be Medical Officers of the Lithgow Hospital.

VICTORIA.

Brown, Alfred Austin, M.B., to be Inspector of Food for Export, Department of Agriculture.
Fetherstonhaugh, Robert Trevor, M.R.C.S., to be Acting Port Health Officer for the port of Geelong, during the absence on leave of T. J. M. Kennedy, M.B.
Dunn, Dr. Spencer to be Health Officer at Kaneira.
Gray, Dr. C., of Maldon, to be local examiner for consumptives seeking admission to the Victorian sanatoria.
Harker, —, M.B. (Melb.), to be Resident Medical Officer at St. Vincent's Hospital for a period of 12 months.
McPhee, Robert George, M.B., to be Acting Officer of Health, Bannockburn Shire, during the absence of Thomas John Moore Kennedy, M.B.
Ridley, T., M.B. (Melb.), to be Assistant Resident Medical Officer of the midwifery department at the Women's Hospital, Melbourne.
Short, Robert Edgecumbe, to be Health Officer, Maffra Shire, West Riding, *vice* William Sydney Sweet, M.B., resigned.
Spowers, Dr. E. A., to be Honorary Gynaecologist to outpatients and Assistant Gynaecologist to in-patients at St. Vincent's Hospital.
Webb, Arthur Bridges, M.B., to be Officer of Health for the Shire of Grenville, *vice* James Blair Donaldson, L.R.C.P., resigned.

The following gentlemen have been appointed Public Vaccinators for the districts set opposite their names respectively, viz. :—

Lane, Ronald Mastai, M.B., for Metropolitan district, during the absence on leave of C. L. McCarthy, M.B.
Lyons, Alexander, M.R.C.P., for South-Western district.
Taylor, Robert Stanley, M.R.C.S., for South-Eastern district, during the absence on leave of A. E. Taylor, M.B.
Webb, Arthur Bridges, M.B., for South-Western district, *vice* J. B. Donaldson, L.R.C.P., resigned.
Wood, Francis Aldersley, M.B., for North-Western district, during the absence on leave of J. H. Ingham, M.B.

SOUTH AUSTRALIA.

Carr, Dr. H., to be Health Officer for Port Pirie.
Marshall, Dr. C. E., to be Deputy Health Officer for Davenport.
The following gentlemen to be members of School Boards of Advice for the following districts:—Adelaide, L. W. B. Ckie, M.R.C.S.; Terowie, A. Goode, M.B., B.S.; Moonta, T. James, M.R.C.S.; Narracoorte, A. R. Macmillan, M.B., Ch.M. The following appointments have been made at the Narracoorte Hospital:—Medical Officer, Dr. A. R. Macmillan; Hon. Surgeons, Drs. A. R. Caw, G. Gocher, and Magee.

QUEENSLAND.

South, Dr. H. to be Medical Officer at Boonah.

WESTERN AUSTRALIA.

Earp, Dr. F. S., to be Analyst for the Kalgoorlie Road District Local Board of Health.
Ellis, Dr. H. A., to be Officer of Health to the Coolgardie Local Board, *vice* Dr. P. M. O'Meara, resigned.
Hallwright, Dr. G., to be Acting Officer of Health to the Carnarvon Local Board of Health, during the absence on leave of Dr. J. R. Hickenbotham.
Holland, Dr. John J., to be Public Vaccinator for the North-east Coolgardie District, *vice* Dr. Caleb Joyce, resigned.
Hope, Dr. J. W., to act as Assistant Medical Officer at the Fremantle Hospital for Insane, during the absence on leave of Dr. Blackall.
Palmer, Dr. Charles, to be Resident Physician to the Kalgoorlie Hospital.

The following appointments have been made to the Honorary Medical Staff of the Perth Public Hospital:—

Ambrose, T., M.B., M.S. (Syd.), to be Assistant Physician.
Flecker, O., M.B., M.S. (Syd.), to be Assistant Physician.
Nyulasy, A. J., M.R.C.S., L.R.C.P., to be Assistant Gynaecologist.
Teague, H. M.B., B.S. (Melb.), to be Assistant Physician.

TASMANIA.

Irvine, Dr. Richard Charles, to be Hon. Medical Officer to the Launceston General Hospital, *vice* Dr. E. J. Howley, resigned.
Langdon, John Arthur, L.R.C.P. (Edin.), 1874, L.F.P.S. (Glasg.), 1874.

NEW ZEALAND.

Robertson, James Herbert Graham, M.B., Ch.B. (N.Z.), to be a Public Vaccinator for the District of Wellington.
Te Rangi Hiroa, M.B., Ch.B. (N.Z.), to be a Health Officer for the Maoris.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following gentlemen have been registered as Legally Qualified Medical Practitioners in their respective States, viz.:—

NEW SOUTH WALES.

- Marsden, Walter Cecil, L.R.C.P. (Edin.), 1901; L.R.C.S. (Edin.), 1901; L.F.P.S. (Glas.), 1901.
 McKell, Thomas Plewman, B.S.B., A.O., 1900; M.D., 1901 (Dub.).
 McLaren, Hugh, M.B., M.S. (Glas.), 1895; F.F.P.S. (Glas.), 1906.
 Schutt, Edward, M.D. (Erlangen), 1902; State Exam., Erlangen, 1902.
 Silverwood, William Bedford, L.R.C.P. (Edin.), 1882; L.R.C.S. (Edin.), 1882.
 Todd, Robert Stanley Enever, M.B., B.S. (Edin.), 1904.

TASMANIA.

- Ratten, Victor Richard, M.D. (Chicago, Illinois, U.S.A.), 1907.

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

BIRTHS, MARRIAGE AND DEATHS.

BIRTHS.

- BULLMORE.—May 5th, at Woollahra, Sydney, the wife of Bullmore, M.B., Ch.B., M.R.C.P.—a daughter.
 GLYNN.—May 12th, at Riverton, South Australia, the wife of Dr. R. McM. Glynn—a son.
 HALLIDAY.—March 27th, at Sydney, the wife of J.C. Halliday, M.B.—a daughter.
 LAWES.—May 3rd, at her residence, Petersham, Sydney, the wife of C. H. E. Lawes, M.B., Ch.M.—a son.
 MARKS.—May 24th, at Telawney-street, Woollahra, Sydney, the wife of Dr. Herbert Marks—a son.
 LOUGHRAN.—May 26th, at East Melbourne, the wife of H. Gerald Loughran, M.B., Ch.B.—a daughter.

MARRIAGE.

- WALL—SCOTT.—April 29th, 1907, at Morningside Parish Church, Edinburgh, Frank E. Wall, M.B., Ch.B., fifth son of George Wall, Randwick, Sydney, to Gertrude Morrison, younger daughter of John M. Scott, Tipperlinn-road, Edinburgh.

DEATHS.

- CHAMBERS.—May 12th, at Unley, S.A., Anne J., relict of the late Henry Chambers, M.D., aged 78 years.
 COX.—May 31st, at "Firrewa" Hawthorn-road, Caulfield, Melbourne, James Cox, M.D., aged 54 years.
 ELPHICK.—May 14th, at Collie, Western Australia, Edward Elphick, L.R.C.P., (Lond.), late of South Australia, in his 59th year.
 LOUGHRAN.—May 27th, at East Melbourne, Mary Dorothea, infant daughter of Gerald and Florence Loughran, of Murtosa, Victoria.

BOOKS RECEIVED.

- Official Register of Harvard University, 1907.
 Inflammation: An Introduction to the Study of Pathology. By J. Geo. Adams, M.D., F.R.S. Price, 5s net. A volume of 240 pages, illustrated. London: Macmillan & Co., Ltd.
 The following three books have been forwarded us by Baillière, Tindall & Cox, London: Sydney, L. Bruck:—
 1. The Diagnosis and Modern Treatment of Pulmonary Consumption, with special reference to the early recognition and permanent arrest of the disease. By Arthur Latham, M.D. (Oxon.), F.R.C.P. (Lond.). Demy 8vo. of vii + 250 pages. Third edition. Price, 5s net.
 2. Ulceration of the Cornea. By Angus MacNab, B.Sc. Ch.D., F.R.C.S. Number of pages xiv + 196, with 20 illustrations. Demy 8vo. Price, 5s net.

A Synopsis of the British Pharmacopoeia, 1898. By H. Wippell Gadd, F.C.S. Sixth edition. Size, 2½ x 4½. Price, 1s net. Tics and their treatment. By Henry Meigs and E. Feindel, with a preface by Prof. Brissaud. Translated and edited with a critical appendix by S. A. K. Wilson, M.B., B.Sc. London: S. Appleton, 1907. Sydney: Angus & Robertson. Number of pages, xxi + 386. Price, 11s.

The following five books have been received from Messrs. Lea Brothers and Co., Philadelphia, per Mr. L. Bruck, their agent, Sydney.

Essentials of Obstetrics. By Chas. Jewett, M.D., D.Sc., assisted by Harold F. Jewett, M.D. Third edition. Revised and enlarged, with 80 illustrations and 5 coloured plates. Number of pages vi + 413. Price, 10s.

A Manual of Obstetrics. By A. F. A. King, M.D. Tenth edition. Revised and enlarged, with 301 illustrations and three plates. Number of pages xx + 688. Price, 12s.

The Practice of Gynecology, in original contributions by American authors. Edited by J. Wesley Bovée, M.D. With 382 illustrations and 60 full-page plates. Price, 25s. Number of pages xii + 836.

A Textbook of the Practice of Medicine, for Students and Practitioners. By Hobart Amory Hare, M.D., B.Sc. Second edition. Revised and enlarged, with 131 illustrations and 11 plates. Number of pages xv + 1132. Price, 22s 6d.

A Pocket Formulary. By E. Quin Thornton, M.D. Eighth edition. Revised. Price, 7s 6d. Number of pages vi + 287.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Mr. G. T. Taylor, Hobart: The Hon. Sec. Ballarat Branch of the B.M.A.; Dr. Hamilton Kenny, Gympie, Q.; Messrs. Backhouse & Goyder, Sydney; The Lambert Pharmacal Co., St. Louis, U.S.A.; Reuter's Telegram Co., Sydney; Dr. D. McLean, Carrisbrook, Vic.; Dr. J. E. Fairbairn, London; Mr. J. B. Browne, London; Messrs. Burroughs, Wellcome & Co., Sydney; Dr. Schuster, Berlin; Dr. Mabel Crutchfield, Bouli, Q.; Dr. John Steel, Ballarat; The Editor "Chemist and Druggist," Melbourne; Dr. H. Bennett, Ballarat, Vic.; Dr. L. Herschel Harris, Sydney; Dr. N. A. W. Conolly, Sydney; Dr. W. T. Chenhall, Sydney; Mr. L. Bruck, Sydney; Dr. Rees Llewellyn, Braidwood, N.S.W.; Dr. Henry Laurie, Melbourne; Dr. Litchfield, Sydney; Dr. Alex. Robertson, Sydney; Dr. Couch, W.A.; Registrar Royal College of Physicians, London; Agence Mitchell, London; the Publishers "Folia Therapeutica," London; Dr. F. A. Pockley, Sydney; Dr. Cyril Corlette, Sydney; Dr. G. H. Rowlands, Ohma, N.Z.; Dr. Cribb, Millthorpe, N.S.W.; Denver Medical Manufacturing Co., Sydney; Dr. Maudsley, Melbourne; Dr. A. E. Martin, Perth, W.A.; Dr. J. Ashburton Thompson, Sydney; Miss Nasmith, Wyalong, N.S.W.; Dr. W. Chisholm, Sydney.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor."

We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valeric Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creosote." The *Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

AUSTRALASIAN MEDICAL GAZETTE

No. 310.

SYDNEY, JULY 20TH, 1907.

VOL. XXVI., No. 7.

THE PROFESSION AND THE PUBLIC.

An Address delivered at the Annual Meeting of the South Australian Branch of the British Medical Association.

By E. W. Morris, L.R.C.P. (Lond.), M.R.C.S.,
Adelaide, Retiring President.

AFTER some introductory remarks, Dr. Morris proceeded as follows :—

Proposed Medical Act.—In referring to the proposed new Medical Act, he stated :—Dr. Ramsay Smith has suggested the advisableness of including provisions for the proper protection and control of chemists, nurses, midwives, and masseurs ; and in this I think we shall all agree. The people have a right to expect that if they pay for qualified services in any one of these capacities they shall get them, and it would be a good thing for both if the people could be brought to understand that restrictive legislation such as this is in the long run more for the benefit of the people than the profession, in that they will know that the Government has insisted that anyone they may employ in each and all of these professional capacities is properly qualified to perform the services for which they pay them. It would be an excellent thing if we could find some means of impressing upon the community at large the fact that the primary object of this measure is not to create a (so to speak) high protective tariff for the benefit of doctors, nurses, chemists, etc., but rather to create such a protective rampart of professional excellence as shall ensure to the community the comforting knowledge that they are getting what they pay for at a reasonable fee, and are not being imposed upon by an audacious quackery or by a specious pretence. Such a result cannot be attained except by a measure such as this, and that only by the cordial and intelligent co-operation of our legislators. With regard to registering qualified midwives, it is to be hoped that the Act will be so framed that the abuse of the English law, by which the profession is practically compelled to act as the unpaid assistant to a person whom the law proclaims to be his equal, in the eyes of the untutored at least, shall be avoided.

Nurses.—It is pleasing to recognise the fact that two excellent institutions for qualified nurses—a branch of the Royal British Nurses'

Association and the Australasian Trained Nurses' Association—have been started in this State, and are flourishing. But large as is the field they occupy, and excellent as is the work they do, there is still a wider field which they cannot touch, and that is among the poorer classes of the people. It has always seemed to me particularly hard on these latter that there should be no intermediate stage of expense in skilled nursing between the private nurse at £2 2s a week and her board and lodging and the cost of waiting on her, on the one hand, and the incompetent, illiterate, yet withal self-satisfied, person of the Mother Gamp class, on the other. What a grand opportunity for some rich man with a philanthropic intent who is looking for an object fitting to spend his money on, to endow a (may I call it ?) series of working nurses' homes in the poorer districts of this community. The creation of a sufficient number of these working nurses would be an easy matter provided the Hospital Board would come to an agreement with the trustees of such a fund to train a woman in the elements of nursing, and that she should be sufficiently domesticated to superintend the sending of the children to school, the preparation of the invalid's food, of the general meals, and the household work. What an ideal position would such a woman fill in the house of a working man whose wife was laid up either from illness or maternity. Such a staff of women, worked perhaps in conjunction with that most excellent institution, the District Trained Nurses' Society, would truly enhance the value of the good work which that Society already performs.

Illegal Operations.—It is also to be sincerely hoped that some clauses will be introduced into this new Medical Act which will serve to check the practice of procuring abortion, which has been so prominently before us for some years. No more flagrant exhibition of contempt for the law as it now stands could be afforded than that by a woman who, awaiting her trial on bail, continued to have a prominent advertisement in a local paper to the effect that she was still prepared to carry on the business for which she had already been abortively tried. A clause in the vital statistics of one of the principal cities of the Commonwealth states

that 11 per cent. of the births were illegitimate, which works out on the gross birth rate at over 1500 for the year. When one bears in mind that it is almost a certainty that each of the unfortunate mothers of these more unfortunate children took some means and spent certain moneys in fruitless attempts to get rid of her trouble, and when one considers that for every one of these 1500 illegitimate births certified as such there are scores possibly of cases of either abortion or premature birth, induced either by drugs or by mechanical means, often at considerable expense, one realises on the one hand the inducement to the irregular practitioner to enter such a lucrative field of work, and on the other hand the imperative duty of State Governments to endeavour to frame such laws as will keep this crime in check. What a field is here for the earnest work of our clergy and other moral teachers so to elevate the tone of the lives of the people as may lead to a cleaner living!

Patent Medicines and Quackery.—It is to be hoped that this new Medical Act will also contain some stringent clauses which will serve to control that ever-increasing evil, the patent medicine fraud and advertising quacks. Only last month, in Tasmania, a man died from taking an overdose of what was advertised as a harmless patent medicine, and the law, while professing to protect the people against those obtaining money under false pretences, does not seem to trouble to interfere with the numerous army of quacks and charlatans who, masquerading under the guise of qualified practitioners, or seeking (apparently all too successfully) to delude the public by various extraordinary combinations of letters after their names, gather in the guineas of the credulous for pretended consultations and so-called medicines, backed up by the Government who receive fees from them for advertisements on their own railway hoardings. There are imported annually into the Commonwealth and New Zealand, to be consumed by their population of under 5,000,000, patent and proprietary medicines (so-called) of the invoice value of considerably over three-quarters of a million sterling. I remind you that this does not include the locally-made articles. You will therefore recognise a state of affairs that may well make one pause and think over the immense amount of damage to the health of the community which this necessarily means, and when one further reflects that the retailers and distributing house profits, together with the Customs duties, have to be added to the above

amount, a case has been made out that urgently calls for the interference of the Commonwealth, States, and New Zealand Legislatures, although we must at the same time fairly allow that the latter is at the present moment far ahead of us in this matter.

Tuberculosis and Cancerous Meat.—One recognises the excellence of the Health Act of which the late Dr. Campbell was the political father, and the benefit which it has been to the people, but I think as science advances, so might the Act be amended. It is quite time that tuberculosis should be placed with the group of communicable diseases, and the notification fee for it be paid. It should also be provided that when a person suffering from tuberculosis whose wife and family are dependent upon his earnings, and who has also his means of livelihood taken away from him by his discharge from work consequent upon the visit of the health inspector, as the result of the notification by his medical attendant, should be compulsorily placed in a proper sanatorium until he has so far recovered as to be no more a medium of infection to his fellows and his family, provided for at the expense of the State. With regard also to tuberculous and cancerous meat, I certainly think that the Government should reimburse the butcher for the meat which he has innocently bought as sound, and which, in the interests of the community, the inspector has ordered to be destroyed. Any expense which the Government may incur on behalf of the people in these directions will be more than repaid to them in the gain of population by the diminished death-rate from consumption.

A Plea for Vaccination.—It seems somewhat like kicking against the pricks, but at the same time it is our solemn duty to lose no opportunity of warning the people of the risks they are running by the neglect of vaccination, and that a community so living in a state of unprotection from small-pox are existing in a fool's paradise, from which they are liable at any moment to have a very rude awakening. The ever-increasing speed of our ocean transports lessens the time occupied in transit from ports in which small-pox is epidemic, and brings possible contacts here under the time of the period of incubation which would allow them to land and freely mix with their fellow-citizens before the disease has shown itself. I have a sort of intuition that the people think that our advocacy of vaccination is due to whatever material benefits we may ourselves receive from

its practice. The paltry fees that are received for the proper performance of this duty are so insignificant as to carry their own rebuttal of this idea. Statistics of the last 50 years are replete with evidences of the great national importance of this protective measure, but to take only one, and that the latest evidence of its value, one might quote the immunity of the German Empire from this dread disease, together with the outbreak of smallpox in the border town of Metz, and the entire absence of it from among the protected by vaccination German portion of its people. One wishes that in the light of the latest retrograde Act, passed by our local Legislature, one could convey to its socialistic Labour and allied self-opinionated members the hint which was conveyed to rejected candidates at the last London County Council elections, namely, that sound legislation does not contain the right to have an infectious disease disgusting and disfiguring in itself, and one liable to involve others in serious risks or loss of life.

The Coroner and the Profession.—Those of us who read our medical papers will have noticed how frequently letters and articles appear with regard to the action or want of it by coroners. One recognises that they have at times a not altogether enviable position to fill, and that notwithstanding the fairly intelligent Acts they have to guide them they often seem to be at issue with either the profession or the people. One of the grievances is (and it appears to me quite a legitimate one) that many, if not all, coroners expect the profession, through the police, to furnish them with such particulars of a reported case of sudden or violent death (without fee or reward, mark you!) as will often enable them to dispense with an inquest, and so by that, the loss of a fee to the doctor. That should not be so. Every medical opinion, except that given voluntarily in the cause of charity, is worth its proper fee, and the Crown law officers might well see that some provision in the future is made in the Coroners' Act by which information sought for in these circumstances should be adequately paid for. It would be well if the profession knew (and always acted upon it) that there is no legal obligation whatever to give the police any such information, or even to say for what the patient was attended. The coroner cannot call upon a doctor to give him information for which there is no legal authority. A most undesirable position, I grant you, but the greater the disability the greater the necessity

for reform. Most of us have (as has frequently happened to me) had experiences of cases in which, from our local knowledge, the circumstances surrounding a sudden death were suspicious, and which, having been reported by us, no inquest was held. Only the other day we were told "there is being exhibited by some members of the profession a strong tendency to assume the functions of a coroner," which reminds one of, "I am Sir Oracle, and when I open my lips let no dog bark." The coroner exercises the discretion which he is legally allowed in a perfectly lawful and, from his point of view, conscientious manner. Still, one must not, I think, forget that one, if not the greatest, of essential reasons for the existence of that office is the comforting knowledge to the people that no sudden or suspicious death can take place without a duly legal coronial inquiry ensuing. But if on some technical or other point these inquiries are continually being shelved a feeling of unrest is engendered in the minds of the people, while at the same time a direct encouragement is held out to the evildoers to perform criminal acts by the thought that there is a very fair chance that no legal inquiry will be held, notwithstanding that a medical man, fully cognisant of the case and all its local surroundings, has seen fit to refuse a certificate of death, and has felt it his duty to report the case to the police. Far better would it be for the safety of the people and for their peace of mind if even ninety-and-nine abortive inquiries were held rather than one criminal should go unpunished.

Medical Inspection of School Children.—I think the time has arrived when a proper medical inspection should be made of the children attending our public schools at least once or twice a week. The advantage of this to the community, the children, and their parents is obvious. How often, for instance, are children observed going to school in the desquamating stage of scarlet fever, or who are in themselves the innocent means of carrying about chickenpox, diphtheria, pediculi, measles, and tuberculosis? The fact that the type of zymotic diseases in this State is usually so much milder than it is in colder climates often allows children suffering in the early or passing-away stages of these illnesses to attend school the more readily than they would do in vigorous surroundings, and so give a greater chance of their spreading. One may perhaps pause to consider how far, in the light of the huge imposition in the rates for educational

purposes in the old country, a socialistic Government, such as we have here, would go towards burdening the taxpayer with regard to the State schools in the matter of their physical (of providing food) and medical (supervision of their health) well being. I do think, however, that money would be well spent from the point of view of political economy in having a proper system of medical inspection, more particularly with regard to defective eyesight, teeth, and post-nasal troubles, which would prevent the propagation of disease, check the onward march of incipient illness, and generally take such steps as would tend to elevate the all-round physical and moral standard of our school children. One might suggest to the Labour Government, which is now in office, that the inauguration and bringing to maturity of some such measure would hand down to posterity an adequate excuse, even if not a reason, for their being in power.

Take care of the Teeth.—The very bad condition of the teeth of the people of the Commonwealth from the time when their first permanent ones appear and onward must always be a menace to their continued good health. It is due in the first place to the neglect by the parents of the mouths of their children. This could be remedied in connection with the scheme of medical examination of school children, to which I have referred. With regard to adolescents and adults, the condition of their teeth is due partly to their carelessness or neglect, partly to the fear of pain or dread of anæsthetics, but largely in my district to the question of cost. There must be in every working class district a large proportion of people who are in bad health for want of a sufficient number of teeth to perform the office of mastication properly, and in numbers of cases yearly one gives ether to persons who, despite our remonstrances, have numerous healthy teeth removed, together with stumps and decayed ones, on the score of what is, of course, false economy. Would it not be possible in connection with our Government hospitals that, in addition to extractions and fillings being done, some scheme of artificial denture might be evolved by which, as at the National Dental Hospital in London, they are supplied to the people at a reduced rate, and as in the case of those patients residing at a distance or who are unable to afford the expense of several railway journeys, some arrangements should be made with local

qualified dentists approximately on the contract basis which applies to lodges, by which they could be attended to at the same rate as they would be charged at the hospital, every care of course being employed to prevent imposition on the part of those who can pay the ordinary dentist's fee.

Alcohol as a Medicine.—I cannot but think that the public must be in a quandary with regard to the various forms of alcohol—whether on the one hand they are beneficial as a medicine and emergency agent, or a dietetic, or whether on the other they are either a slow and sure or a rapid and deadly poison. Both propositions have been put before the medical world, and have been freely quoted and discussed in the lay press. I feel sure that even the strongest advocate of total abstinence among us will allow that in cases of grave emergency alcohol either by the mouth, hypodermically, or per rectum, is a valuable therapeutic adjunct to our resources, and that the more temperate of us will also allow that alcohol in the form of sound, dry wine, properly matured beer, or diluted spirits taken in moderate quantities either with or not long after a wholesome meal, is not deleterious, and in certain circumstances of climatic and other surroundings or of personal idiosyncrasy is distinctly beneficial, and that seems to me fairly to put the case for and against the use and abuse of alcohol.

Lodge Practice.—I should like to say a few words with regard to lodge practice. It is gratifying to know that for some time past no serious friction has arisen between the profession and the friendly societies, and I think that the best results, when they do occur, will be obtained by the councils of the representative associations of the profession, such as the Medical Defence Association, meeting the grand lodges or other representative bodies of the great industrial and friendly societies of the State.

Vivisection.—One hears and reads nowadays a good deal of hysterical and sentimental twaddle with regard to vivisection, controlled as it now is by definite and well-defined preventive legislation to ensure the carrying out of this scientific process by duly qualified men only, and also to ensure its always humanitarian performance. Surely it is illogical of these anti-vivisectionists not to be content with a diagnosis based upon clinical observation only, but who insist that it should be confirmed by bacteriological examination and

controlled by inoculations into animals. If they were consistent they would refuse to allow the use of antitoxin serum on their children, who might be dying of diphtheria; of calf lymph if they were exposed to the infection of an epidemic of smallpox of a virulent type; of plague serum, if they were suffering from that dread disease; of inoculation into mice to confirm the diagnosis of a suspicious case occurring in their household; or of the serum for snakebite when they have been bitten by one of the more venomous varieties of these reptiles.

Equipment of Asylums.—With regard to the medical management, attention, and nursing given to those of our unfortunate brethren who for a time, or perhaps permanently, have become mentally deranged, such do not get the skilled medical and nursing attendance which they should have. In saying that the medical and other officers of asylums will understand that I am not in any way blaming them, but the miserable parsimony of the Government departments under whom they work, and the incapacity which these departments show in regard to their duties and responsibilities. A properly equipped asylum should contain physicians, surgeons, a pathologist, a bacteriologist and ophthalmic physician on its staff, together with properly trained and qualified male and female nurses in addition to the attendants and domestics which already exist. Surely the time has arrived when Governments should recognise that insanity is a disease, and as such is capable, in a certain proportion of cases, of being cured, and that being so, its treatment requires and demands the same careful and clinical observation, the same accuracy of diagnosis, of pathological investigation, and of bacteriological examination as do those cases of disease which occur in our hospital and private practice. For whatever the extra cost may be of running our asylums on proper modern and scientific lines, a valuable asset will be returned to the community in the large proportion of patients who come away from them to return to work again cured.

Effect of Australian Summers on Workmen.—Some time since I was reading a paper kindly sent me by the author—a past President of this Branch—on some of the effects on British colonists of migration to South Australia. I agree with all he wrote except in regard to the rarity of rheumatic fever, which among the working classes has seemed

to me almost as prevalent here as in Europe. I think in my experience I should have added the comparative rarity of hip and other joint diseases. The perusal of his paper recalled to my mind a series of cases which have come under my notice during my 17 years' practice at Port Adelaide, and which seem to me sufficiently distinct to warrant my calling attention to them, and which I may fairly describe as a subacute general arteritis and endocarditis. I have not found it among those who labour hard mentally, and those born out here seem as liable as those who have emigrated to this State. I have not found it occur among the coloured or half-caste people who have taken up their residence here, which leads some to suppose that the summer heat of South Australia has a good deal to do with the causation, although the injudicious diet of many of the working classes may to some extent be answerable. The cases have occurred among males of from 35 to 50 years of age (far earlier, you will observe, than one usually expects general arterial degeneration to occur), and always from the class who lead a strenuous physical life, such as stevedores, timber and wheat carriers, storemen and navvies. Those cases generally come under observation in February, March, or April, after the hot season. I have been more inclined to mention this class of case because I have noticed that a not unimportant party in the politics of Australia, who represent a considerable proportion of the residents of my district, are insisting on a white Australia. This principle is, in the light of my experience, as a medical man, wrong, and one entirely opposed to the general scheme of creation as instituted by the Almighty.

SOME CLINICAL CASES: AN ESSAY IN RATIONAL THERAPEUTICS.

By A. Jefferys Turner, M.D. (Lond.), D.P.H. (Camb.), Brisbane.

THOUGH the title I have used as a heading is sufficiently vague, the following cases have not been chosen at random. I will point out the moral as I proceed.

CASE I.—*Repeated convulsive seizures.*—On November 18th, 1903, I received a hurried summons to a case of convulsions. On arrival I found a healthy-looking, well-developed but evidently spoilt child of 2 years and 9 months. She had recovered from her attack,

which was a short one, and her distracted parents were comforting her with chocolate creams. On making inquiry I found that she had had a genuine eclamptic seizure, that this was her fifth attack (the first occurring nine months before), and that the intervals between the attacks were decreasing, the last having been six weeks. This history put a serious aspect on the case. The progress of the attacks threatened to develop into permanent epilepsy unless their cause could be detected and removed. This was not difficult. She had been most injudiciously fed, pampered with sweet things, and daily given a large quantity of chocolate creams and other sweetmeats. The important information was elicited that before each attack of convulsions she for a short time lost all appetite. I forbade all sweetmeats, directed that the child was to have no sugar, or very little, and that the quantity of starchy food was to be somewhat restricted. A dose of calomel was to be given promptly should she ever have an attack of anorexia, and the food restricted to milk for a time. These measures were completely successful. The attacks, which were becoming more frequent, disappeared at once and permanently, the child remaining under my observation for two years.

Commentary.—This case is given as a good example of a common cause of convulsions in children. These are often regarded as a reflex effect of indigestion, and credited to the last indigestible substance ingested. Without going so far as to reject the reflex theory, I would relegate it to a subordinate place. I consider that the most important factor is a blood-state, due to over-alimentation with carbonaceous foods, and very often to sugar-gluttony. The convulsive seizure on this theory is the effect of a summation of a series of excessive carbonaceous intakes, and acts as a powerful decarbonising agent in temporarily dispersing this blood-state. Some may demur to the suggested connection of such convulsions with epilepsy. Without entering into a long controversy, I may say that I think the burden of proof lies with them. As phenomena, the convulsive seizure and the epileptic attack are indistinguishable. Both, I imagine, depend on a twofold causation—an unstable condition of the cerebral discharging centres and a blood-state. According to which factor predominates we have an incurable epilepsy or an unimportant accident. If we admit that the repetition of convulsive seizures increases the

instability of the cerebral centres, then repeated convulsions in childhood may well lead on to permanent epilepsy.

CASE II.—*Severe and frequently recurrent headaches since childhood. Great relief, which persisted, by exclusion of sugar from the dietary.*—Mrs. F. first came under my notice suffering from a polyp of the uterine cervix, which was causing great pain, and which I removed. Unfortunately, though relieved of her local trouble, violent periodical headaches, from which she had been free for six months, returned with increased severity. Her history was as follows:—Thirty-nine years of age, in rather poor circumstances, thin, apparently a hard-working woman, she had suffered from headaches all her life, except during pregnancy and for the interval mentioned. They were severe even in childhood. Up to 34 years of age, though very severe, they always disappeared after a night's rest. Since then, however, they have lasted two or three days. She knows when an attack is coming on by a feeling in the right, less often in the left, eye. During the attack she can take nothing, not even a drink; has nausea, but no vomiting. She always has an attack at the menstrual period, usually one mid-way in the interval, sometimes two in the interval. On December 3rd, 1903, after she had been under observation for many months, it was noted that the attacks had recurred during the preceding three months nearly every week. I saw several, and can testify as to their severity and the prostration induced. Of acetanilide and similar drugs she had taken much; lately they seemed to be losing efficacy. Between the attacks she felt well and ate well. On this date I elicited the information that she was excessively fond of sugar. She believed that she ate 3 lb. of sugar in the week, certainly an extraordinary quantity. I ordered her to cease taking sugar in any form. July 22nd, 1904: Since leaving off sugar she has had only two attacks (one severe) in seven months—a very striking improvement. December 10th, 1904: She still takes no sugar, and is emphatic that the headaches are very much better. Occasionally she gets a slight one, but nothing like the former attacks.

Commentary.—The relation between cause and effect—sugar and headaches—was conspicuous. There are two additional interesting points about her case that must not be passed over. Why was she free from headaches for the six months before I first saw her? She could not suggest any reason. Her habits and mode of life were unchanged, yet

she always felt well during that half-year. I solved the problem to my own satisfaction. On being questioned she admitted that during that time her menses were excessive, owing no doubt to the presence of the polypus. This extra decarbonisation saved her from headaches, and I had unwittingly removed the safety-valve. The other point is that she had had five children and that the headaches always disappeared during pregnancy, to reappear during lactation. Unfortunately, during pregnancy, headaches were replaced by toothache. Her experience in this respect is by no means unique. You will find that it is not uncommon for these lifelong attacks of headache to disappear during pregnancy, and sometimes during lactation also; and if you share my views as to the underlying blood-state, you will see that this freedom is what might be expected.

CASE III.—*Persistent headaches lasting for many years dispersed by dieting; recurrence on discontinuing diet.*—Early in 1902, during a short spell of official work, I became acquainted with a fine healthy-looking woman, a widow, holding a responsible position in the Government service. She suffered much from headache, and had abandoned medical treatment, which had never given her more than slight relief. I told her that I could improve her headaches if she would submit to my treatment. Apart from her headaches she was very strong, worked hard, and enjoyed splendid health. Her appetite was good, only slightly impaired when the headaches were at their worst, and this she made up for afterwards. She was fond of sweet things, but had always been a teetotaler. She was 47 years of age. Her headaches began twenty years before; they were at first monthly, and invariably occurred at the beginning of the period, sometimes also in the interval. So she went on for ten years. During the last ten years, however, the headaches became constant. She could not remember a morning free from headache, which would continue more or less during the day, but never entirely disappear. During her periods they would be sometimes so severe as to keep her in bed for several days. During her worst attacks she would feel cold and clammy, and the coldness and blueness of the surface would be perceptible to others (general vaso-motor constriction), and there would be a throbbing in both temples, and on the back of the head on both sides (local vaso-motor dilatation). She would then feel

half-dazed, and was sometimes completely prostrated. Her periods were still fairly regular.

On May 21st I placed her on a strict diet. Sugar was interdicted, and all carbohydrate food rather severely restricted. She pinned up the diet-sheet on the wall of her room and followed it religiously. Within a week she got relief, and at the end of the month the headache had disappeared. She had a bad headache on July 3rd, reminding her of old times, but only lasting one day. On July 10th it was noted that her weight had been reduced from 11 st. 12 lb. to 11 st. 4 lb. In August she had an attack of influenza, which was attended with headache. Otherwise she continued free till the end of the month, when I lost sight of her.

I saw her again in June of the following year. She told me that she had remained free from headaches until Christmas, when, being troubled with climateric floodings and consequent loss of appetite, and being withal among friends having a holiday, she abandoned her regimen. Since then her appetite had been very good, and she ate heartily, including a good deal of sugar in her diet. At the same time she has suffered much from headaches every week, sometimes twice a week. I advised a fresh course of dieting, but do not know whether she carried it out.

Commentary.—As a rule severe headaches are attended by anorexia, or even nausea, and so work their own cure, leaving the patient free from them for a season. Exceptionally this anorexia is absent, as in the present case, and the headaches then tend to be persistent as well as severe. This being a bad case the diet was very strict, and the patient lost weight on it. I had intended after a time to have relaxed it somewhat, so as to keep the patient on an equilibrium. The return of the headaches on resumption of the old diet had the force of a scientific experiment. We cannot legitimately vary the conditions of treatment so as to obtain a scientific proof of the causation of morbid conditions, but dieted patients will usually, sooner or later, vary the conditions of their own accord, and so give us an interesting confirmation of the validity of our treatment.

CASE IV.—*Relapsing bronchitis of five years' duration completely cured by dieting.*—On April 17th, 1904, a boy of 11 years was brought to me by his parents. He had been subject to frequently recurring "colds," accompanied by coughing and wheezing, since

six years of age. Four years previously he was operated on for adenoids by a throat specialist. His father thought he was better for a time after the operation, but since then he has been worse than before. He had had breathing exercises for several months, but still breathed through the mouth after exertion. He was always short of breath after exercise. During the attacks he was wheezy at night, the sounds being distinctly audible to bystanders, but his sleep was not disturbed. He was subject to nocturnal enuresis, especially during the attacks. Occasionally he had had turns of headache with loss of appetite and rarely vomiting. They came on especially when his mother had been "feeding him up." He was very active in his habits. His appetite was good. His diet was carefully enquired into; it was plain but liberal, containing a large amount of carbohydrates, such as porridge, bread, potatoes, and puddings. For a healthy boy I should not consider it a bad dietary.

On examination he was thin, the chest was somewhat flattened below the nipples, but above them was too large, decidedly suggesting emphysema. Nothing else abnormal was detected. I placed him on a somewhat strict dietary, largely reducing the quantity of carbohydrates. During the following month he had one "cold" with wheezing for two or three nights. His parents observed my directions faithfully. In July he had a slight cough accompanied probably by rise of temperature. I think this was an influenza or infectious catarrh. Since then I have seen his parents on several occasions. They tell me that his attacks completely disappeared under the dietary; he has quite lost his susceptibility to "colds," and never has bronchitis; indeed, when the other children suffer from them he escapes. The diet was continued *strictly* for twelve months, and not so strictly for another year. Since then he takes what he likes. At my request the boy was brought to see me on May 18th, 1907. He was in much better nutrition than when I saw him three years before; his chest expanded well and was not emphysematous. He was still a mouth breather.

Commentary.—Cases of continually recurring bronchitis in children are most intractable. I cannot say that I have ever cured a case by ordinary medical treatment. I well remember a young girl who used to attend the Children's Hospital at frequent intervals with this complaint, year in and

year out. How many bottles of medicine she consumed I should not like to compute. It is difficult to diet a growing boy, and I did not undertake the treatment of this case with any hopefulness. I was indeed as surprised as I was gratified with the successful result.

CASE V.—Anomalous attacks of mixed asthma and biliousness dispersed by dieting for 15 months, in a patient suffering from renal cirrhosis.—On December 31st, 1903, I was consulted by a sparsely-nourished country-woman, aged 67 years, energetic and temperate in her habits. She had been healthy until her present attacks commenced, had never had any trouble in breathing, and had always had a good appetite and good digestion. During the last three or four years she had lost over a stone in weight.

Her first attack occurred in August, 1901, and she had then three or four attacks, with a month or six weeks interval between each. She was then free until November, 1902, when she had several attacks. Her bowels never act except after medicine. Sometimes she used to go for a week without relief. In December of that year she began taking a mixture containing podophyllin and aloes, which kept the bowels open daily. Apparently this did much good; at least the attacks disappeared until ten days before I saw her, when they returned in spite of regular action of the bowels. She had a second attack six days before, and a third on the morning of her visit.

The attacks were of short duration, but very severe. They always commenced between midnight and 8 a.m. They began with a curious sensation in the chest; soon after there was great difficulty in breathing; this was followed in a few minutes by vomiting (mostly retching up phlegm) and purging, for which she had to get up several times. The difficulty in breathing was accompanied by wheezing and pain in the front of the chest, was extremely severe for half an hour, then continued with less severity for an hour or two. During the attack her feet got cold, and she had a general cold, clammy sweat. At the end of the attack she micturated copiously, felt weak and shaky, and had no appetite.

On examination her tongue had a thick, white fur. Her pulse was about 80, of rather high tension, and frequently dropped a beat. She had evidently emaciated lately. Nothing abnormal was found in heart and lungs; there was no trace of jaundice, but her liver

could be felt two finger-breadths below the rib margin, and was tender to pressure.

I ordered a small dose of calomel twice a week. She was restricted to one half-slice of toasted bread at each meal; she was allowed a moderate allowance of meat (of which she took little) and eggs and green vegetables. Nothing was allowed between meals except milk, and one cup of tea without sugar in the afternoon. The calomel was omitted after a time.

The day after seeing me she contracted "influenza," and was in bed a week. She kept free from attacks for over four months, feeling very well. On April 8th she had a slight attack at 6 a.m., lasting half an hour, and three days later a much worse attack, lasting three hours. There were no more, and she came up to report a month later. I inquired carefully, and found that she was cutting her bread rather thick, probably well exceeding one oz. at each meal. I cut and weighed a slice of $\frac{1}{2}$ oz. as a model, which she was not to exceed. Her attacks never returned. She kept to the diet, except that she took a little bacon and an occasional banana during the winter, and enjoyed very good health until March, 1905, when she had dengue rather severely. Six weeks later she contracted a chill while travelling, and had pain in the side and difficult breathing at night, which continued more or less until I saw her on June 25th, 1905. She had then an irregular pulse, with a high tension of 160 mm. in the brachial artery. The heart's impulse was exaggerated, and the aortic second sound accentuated. The urine contained a cloud of albumen, and she looked ill. From this condition she never recovered, suffering from a fresh pleurisy, distressed breathing, sleeplessness, and finally some oedema and cyanosis, and died on August 20th, within a month of her 70th birthday.

Commentary.—The attacks described are anomalous. I doubt whether you will find such described in any book. But their mechanism is quite intelligible. A general vaso-motor constriction and rise of blood pressure, shown by the cold surface and increased quantity of urine, was accompanied by a local turgescence of the bronchial mucous membrane, liver (which could be felt below the ribs), and possibly of some of the intestinal mucosæ. Hence the difficult breathing, vomiting and purging. The attacks being severe and attended by much depletion, were short, but they recurred frequently.

The patient was willing to submit to anything which promised relief from these dreaded seizures, during which she felt like dying.

I imagine the kidneys were already affected when I saw her first. Unfortunately no specimen of urine was obtainable at the first examination, immediately after which she returned to the country. Subsequently she felt so well that no specimen was sent.

CASE VI.—*Obesity, cirrhotic kidneys, albuminuria, glycosuria, extremely high blood-pressure, cerebral hæmorrhages. Apparent health restored and maintained for two years by dieting and exercise.*—On February 24th, 1904, I was consulted by a commercial traveller, a short but very obese man weighing 12 st. 8 lb. I subsequently ascertained that sugar had been found in his urine in 1899, and both albumen and sugar in 1900. Three months before seeing me he had a sudden attack of transient aphasia, succeeded next day by another attack of aphasia, in writing and speaking, together with right facial paralysis, but no weakness of arm or leg. He still showed slight facial paralysis and spoke thickly, occasionally hesitating for a word. His heart showed the usual signs of continued high arterial tension, and the blood-pressure in the brachial artery was 220 mm., just double the ordinary average tension. The urine was excessive in amount, pale, faintly acid, of specific gravity 1024, contained a trace of albumen and a considerable amount of sugar. He was of sedentary habits, a big eater, and used to take frequent nips, but for the past three months had been a total abstainer.

As the risk of a fresh cerebral hæmorrhage, perhaps fatal, appeared imminent, he was ordered nitro-glycerine m. $\frac{1}{10}$ three times a day. At the same time he was placed on a strict diet consisting of $1\frac{1}{2}$ oz. of bread per diem, and no other starchy food, one apple or pear, a fairly liberal allowance of meat and green vegetables, no alcohol. He proved an exceptionally docile patient, and obeyed all instructions. Five days later his blood-pressure was 140 mm., and the nitro-glycerine was discontinued. By March 5th the urine was free from sugar, which never reappeared, though a trace of albumen could always be discovered. He was encouraged to take gentle exercise, which was gradually increased. On March 7th the blood-pressure was 186 mm. On April 22nd his weight had fallen to 12 st., he felt better and appeared a different man altogether, and resumed

travelling. I saw him again on May 5th; his weight had fallen to 11 st. 9½ lb., and he was taking gentle dumbell and walking exercise. From this onwards he continued in apparently good health, able to do business but preserving a strict regimen, only slightly relaxed from that ordered at first. His weight remained at slightly over 11 st., and his blood-pressure at about 180 mm., on one occasion falling as low as 165 mm. On August 18th, 1905, he returned from a trip in apparently good health, but I was not so satisfied with his condition, for he had gained a few pounds in weight, and his blood-pressure risen to 210 mm. I cautioned him to return to his former diet. He remained in good condition until the beginning of March, 1906, when the coach, by which he was travelling, broke down on the western plains, and he had to sleep out in the open on a rainy night. After that his feet began to swell. In spite of much medical treatment the kidneys remained incompetent, he became very dropsical, and finally died on July 30th.

Commentary.—When this patient first presented himself to me, obese, glycosuric, albuminuric, with extremely high blood-pressure, and suffering from the effects of a recent cerebral hæmorrhage, I could not help reflecting that his life hung by a slender thread. A reduction of the blood-pressure was the first and most pressing necessity of treatment. This was effected rapidly but temporarily by the administration of nitro-glycerine; more slowly but more permanently by dieting. But the dieting did much more than this; it completely abolished the glycosuria from which the patient had suffered more or less for three years, and it relieved him of his obesity. This effect was assisted by graduated exercise, which also improved his muscular tone. As a result the patient was restored from a condition of imminent danger to one of apparent health, and was able to resume work with his former vigour. The underlying renal cirrhosis, of course, continued, and was bound to assert itself sooner or later, the final breakdown being accelerated in all probability by an intercurrent subacute nephritis contracted by exposure to chill while travelling.

CASE VII.—Arterio-sclerosis, high blood-pressure, transient cerebral seizures probably from small hæmorrhages. Reduction of blood-pressure by dieting.—On March 22nd of this year I was consulted by a gentleman, 60 years of age. I had known him some years before as a man of vigorous health, accus-

tomed to a large amount of exercise. Since then he had spent some years in South Africa, where he had undergone much anxiety and worry. He had aged in the interval. Twice within the week preceding the consultation he had had sudden attacks of thickness of speech, accompanied by weakness and tingling of the left upper lip lasting several hours. The first attack occurred while he was stooping down lifting heavy books out of a packing case. There was no loss of consciousness. The alteration in speech was very noticeable to his relatives and lasted several days. On examination he was a man of very florid complexion, and some excess of abdominal fat, weighing 11 st. 6 lb. His brachial, ulnar, and radial arteries showed visible pulsation along their whole course, and felt cordlike on palpation. The aortic second sound was accentuated, and the cardiac impulse, though not unduly forcible, could be felt half an inch outside the nipple. The pulse was 60, regular in force and rhythm. The blood-pressure was 162 mm. The urine was acid, had a specific gravity of 1022 and contained no albumen and no sugar. He said he was not a large eater, but I doubted him. He was very fond of bread and butter, ate but little meat, had a very large plateful of porridge for his breakfast, and took three heaped spoonfuls of sugar in his tea. He had been a strict teetotaller.

I ordered him to take four grains of calomel once or twice a week, gave him a mixture containing small doses of iodide of potassium and nitro-glycerine, and altered his diet. He was to give up sugar and porridge and to take only a restricted quantity of bread. After a few days the medicine was discontinued.

On April 5th he weighed 11 st. 2 lb.; his pulse was 56 and his blood-pressure 148 mm.; he was then not under the influence of the nitro-glycerine, which had been discontinued for some days. On April 12th the blood-pressure was 144 mm. He had been obeying instructions, as I found by enquiry of his relatives, for I did not trust my patient too well. On April 26th he reported feeling himself much better; his weight was 11 st. 1½ lb., his pulse 64, and his blood-pressure 140 mm.

Commentary.—Unlike the preceding, this is a recent case. I give it to show the possibility of reducing blood-pressure by diet. If in a patient who has had in all probability two small cerebral hæmorrhages, and who may at any time have another and a severe hæmorrhage, we can reduce an excessive blood-pressure by 15 or 20 per cent., and keep

it down for weeks together, we may prevent apoplexy. The lowered pressure may also allow the weak places in the cerebral arteries a chance of strengthening themselves by fibrous tissue, for we know that while excessive pressure may produce atrophy, a pressure still high but rather less induces connective tissue hyperplasia.

The facts that I have laid before you are my own observation, and you may rely on their accuracy. The number of cases are few, but they might be easily supplemented by a large number of facts observed by others, from which we might draw the purely empirical conclusion that in a number of morbid conditions relief may sometimes be obtained from restricting the quantity of carbonaceous food taken. Far be it from me to unduly depreciate empiricism. It is often the poor best of which we are capable. A cripple should not abuse the crutch with which he limps. But in the present instance we may, I think, endeavour to walk rationally.

It must be patent to anyone of a reflective turn of mind that our ideas of disease are undergoing changes. In the dawn of medicine diseases were necessarily identical with symptoms. One patient suffered from dropsy, another from continued fever, a third from phthisis or consumption, which simply meant wasting. If the wasting were attended with a cough it was dignified by the name of pulmonary consumption. At a later date morbid anatomy modified these primitive notions. So in our student days, in the early eighties, we looked upon typhoid fever as a fever attended by ulceration of Peyer's patches of a certain type, and on consumption as a disease attended with the formation of tubercles in the lungs, though as to what was or was not to be comprised in the term tubercle there reigned a controversy which seemed interminable.

Of late years our views have been profoundly modified. We are no longer satisfied with a symptomatic or even an anatomical diagnosis. Our knowledge now embraces much of the causal factors of a large class of diseases. We look on typhoid as a fever caused by a particular bacillus. We can conceive of a typhoid fever without intestinal lesions. Pulmonary consumption is to us the effect of a successful lodgment of tubercle bacilli in the lungs, and we recognise that brain fever, destructive disease of the kidney, peritonitis, inflammatory disease of the bones and joints and lymph-glands may be due to the same organism, though symptomatically these affections are as unlike as can be.

Again, a pneumonia is usually due to the pneumococcus, which may also be the causal agent in meningitis, pericarditis, peritonitis, and other conditions. On the other hand, a pneumonic consolidation, apparently identical anatomically, may be due to organisms wholly different. That is to say, an infective organism may in different persons produce morbid conditions which have no symptomatic nor anatomical resemblance; while, on the other hand, two cases apparently similar symptomatically and anatomically may have wholly different causation.

All this is now common knowledge. But in one class of disease that is both large and important—which indeed forms a large proportion of our practice—our ideas still remain in a primitive condition. Asthma, migraine, epilepsy, angina, are but names of symptoms. Gout, diabetes, arterio-sclerosis, and a host of other so-called diseases are little more than this. Our textbooks adopt these headings for convenience of classification, and we unthinkingly accept these headings as real and fundamental distinctions. We delude ourselves into the opinion that because we can give a name to a man's symptoms we know what he is suffering from. To help us in this idle vanity of nomenclature the books give us distinctions, such as those between migraine and headache, convulsions and epilepsy, diabetes and glycosuria, paralysis agitans and senile tremor, which are mere arbitrary definitions, not helpful to knowledge but stumbling-blocks in its way. The infinitely diverse symptoms, which nevertheless frequently accompany or succeed each other in the same patient, are looked upon as wholly distinct diseases. We divide this province of medicine into watertight compartments of our own devising, and for the most part rest content in pure empiricism.

To some extent this is inevitable, but not wholly so. If, for instance, we adopt the hypothesis that these morbid conditions are due to errors of metabolism, to abnormal conditions of the body fluids, or to morbid blood states, an hypothesis for which much might be urged, then we may recognise, by analogy, that the same morbid blood-state may in different patients cause as different diseased conditions as may be caused by the invasion of the system by an infective organism. And conversely that symptoms identical in their manifestations may in different patients be the result of different blood-states and amenable to different modes of treatment.

According to the theory set forth by Dr. Hare, one of these morbid blood-states is due

to an excess of some substance or substances derived from the carbonaceous part of the food ingested. Undoubtedly this theory will explain a large number of clinical facts. It explains, for instance, the beneficial effect of increased carbon expenditure by cold and exercise, or lessened carbon income by restricted diet, on many morbid conditions. It explains the occasional but not infrequent substitution of one morbid condition by another, and the relief of one of the "paroxysmal neuroses" by pyrexia, gout, or glycosuria, all of which entail increased carbon output. It explains the influence of menstrual or other hemorrhages on the attacks. It renders intelligible how these morbid conditions may be relieved on the development of obesity, and how, on the other hand, as Von Noorden has shown, they may be cured by treatment which reduces obesity. It enables us to understand how pregnancy or tumour formation may relieve a patient of symptoms that have been long suffered. A theory is valuable in proportion to the number of facts which it will explain. No theory, of course, will explain all the facts, because no theory contains the whole truth.

But the hypothetical blood-state is only one factor in the complex causation of these morbid conditions. Its removal will not necessarily disperse the derangement of function, which it originally induced. There appear to be, as Dr. Hare expresses it, conditions of "pathological prepotency," where pathological methods of decarbonisation have become habitual to the organism to the partial replacement of physiological methods. Such cases cannot in many instances be benefited by diet. I should indeed advise that dietetic treatment be attempted only in carefully-selected cases, after a full investigation of their medical history and a thorough physical examination. Some patients find the treatment too irksome, and will not submit to it. But in others, suffering from symptoms otherwise intractable, great benefit may be obtained from its careful use.

(Read before the Queensland Branch of the British Medical Association.)

Nurses and the Balmain Hospital.—Some time ago the board of management of the Balmain Hospital communicated with the Australasian Trained Nurses Association, requesting recognition of the hospital as a training school for nurses. The council has decided to rescind its former decision communicated to the board last year, and to formally recognise the Balmain Hospital as a four years' training school, such recognition to date from the close of 1902, the year in which the daily average number of patients exceeded 20.

NOTES ON A CASE OF BILHARZIA HÆMATOBIA.

By Bernard James Newmarch, M.R.C.S. (Eng.),
L.R.C.P. (Lond.), Hon. Assistant Surgeon,
Sydney Hospital; Hon. Medical Officer,
Royal North Shore Hospital.

WITHIN the last few days the case, notes of which I present this evening, came under my care. The patient is a male, aged 56 years. A native of Gloucestershire, England, he came to this country in 1884, and has resided at Jesmond, in the Newcastle district, for the past 23 years. He has never travelled nor resided abroad. He always enjoyed good health, and up till the past three years has worked as a coker. He first noticed a discolouration of his urine nine years ago; he describes the attacks as lasting only for a few hours, the colour as coffee colour, giving no pain. Twelve months ago he passed what appeared to be pure blood, and since then he has had several attacks. Dr. Michel, of Wallsend, kindly wrote to me when the patient came under my care, and told me that the attacks always subsided under medical treatment, rest, and diet.

The present attack came on three weeks previous to coming under my care; it has been by far the most serious of all; the patient has passed very large amounts of blood continuously, without apparent relief from treatment.

On examination on the 11th inst. he presented the appearance of a well-nourished man, but intensely anæmic. Pulse 96, full and resistant. He was passing urine which had the appearance of pure blood; there were large clots, a quantity of mucus and a sandy detritus. The act of micturition was fairly well performed, in separate acts, and without pain. Per rectum a very distinct thickening and sense of resistance was felt anteriorly.

For better observation and treatment I admitted him into the Royal North Shore Hospital on the 12th inst. On the day after I passed a large sound with ease; the bladder was felt to be contracted, and the surface irregular; with finger in rectum and sound in bladder I could feel a definite thickening. No stone or incrustation felt. I thought that I had to deal with a case of tumour of the bladder; but before proceeding further I asked Dr. Wherrett, the resident medical officer, to make an exhaustive examination of the urine, and incidentally mentioned Bilharzia hæmatobia. He was amply re-

warded, for after a most careful examination, he discovered one ovum of the hæmatozoon.

Up to this the patient could not be said to have suffered pain, but on the following four days the pain and difficulty on micturating became intense; in fact, he presented the symptoms of acute cystitis. Violent tenesmus, agonising pain, frequent dribbles of bloody urine, and at last retention seemed to point to clots unable to pass, but on passing a large, double-channeled catheter and washing out the bladder only a few small clots were passed, with little or no relief.

The condition of the patient became worse, and his relatives begged that he might be allowed to return home. Since then matters have improved, the urine has become quite clear, and though there is still a burning pain when passing urine, and a continual wish to pass it, there is not the tenesmus and continual pain suffered previously.

From the 15th to 18th inst. the temperature ranged between 101·4° to 100° F., and the pulse became rapid; tongue dry and thickly coated.

As regards treatment, morphia has been given freely to relieve pain, and urotropin with ergot has seemed to stop the hæmorrhage. The penis during the past week has become swollen, the prepuce oedematous, and the orifice of the penis and surface of the prepuce studded with small swellings like millet seeds encrusted with salts. Relief has been obtained by bathing with hot water and applying lanoline.

I am not going to detain you with a dissertation on the life history, pathology, and symptoms of Bilharzia (vel Distomum, vel Gynecophorus) hæmatobia. I would refer you to Guillemard's article in Allbutt's "System of Medicine," and an able note by Dr. Hinder in the *A.M. Gazette*, October, 1904.

The interest in this case is aroused by the fact that it is a case of infection by the hæmatozoon in a patient that has never resided in other countries except England and Australia. The deduction is obvious. It is a curious fact that has come to my notice that at least one other case, now resident in Newcastle, is suffering from symptoms precisely similar. I hope to get into communication with the medical attendant, and confirm my suspicion.

My interest in the disease is of long standing, inasmuch as a fellow-student and great friend of mine was infected over 35 years ago. He used to treat the matter in the very

lightest manner, and told me that "all the little niggers out in South Africa were troubled that way." Nevertheless I used to ransack literature to find information, but without result.

When "on service" in South Africa I met with several cases of infection in men under my care during the last two months of my year of service, and I have heard of at least two cases of men in my command who have since had hæmaturia.

This case, however we explain it, is not a relic of the Boer war. I do not think the chain of evidence of local infection can be broken, and hereafter we must remember that the disease, if I may dare to call it such, is here existent.

One other lesson is given by this case, and those who meet such I sincerely trust will profit by it. It is "on no account interfere instrumentally." Granted that one must use every endeavour to discover the cause of hæmaturia, and granted also that in doing so we should use instruments—whether sound, catheter, cystoscope, or what not,—but having discovered the cause, thereafter must no instrument be used except to relieve retention.

I have not the slightest doubt that I aroused the most violent cystitis by my endeavours to discover the cause of the hæmorrhage; had I first examined the urine I feel sure I would have stayed my hand.

That persons infected suffer variously is obvious. It is indeed rare, if we accept the statements of writers on the subject, that one sees the serious manifestations exhibited in this case. From what I could gather from practitioners in South Africa they thought lightly of cases, perhaps because the accepted treatment is nil.

I venture to state that with modern means of investigation we should be able to solve the problem of the life history of the worm, and still more the means of cure or prophylaxis.

I believe that this case foreshadows the possibility of research being placed at our doors; if so, the translation to fresh fields may make the task easier.

Dr. Bligh has most kindly prepared the specimens exhibited this evening, and in addition, at my suggestion, made an examination of the blood. The marked leucocytosis is worthy of note.

(Read before the New South Wales Branch of the British Medical Association.)

THE ETIOLOGY OF INTUSSUSCEPTION.

By P. L. Hipaley, M.D. (Syd.), Hon. Assistant
Relieving Medical Officer, Royal Alexandra
Hospital for Sick Children, Sydney.

THE etiology of acute intussusception, in spite of the many theories that have been proposed to account for it, is still somewhat obscure. Anatomical, physiological and pathological factors have all been used to explain the causation of intussusception. Probably all play a part in some cases. There are anatomical peculiarities in the infantile gut, which would act as predisposing causes, and which are absent in the adult gut. The physiological factors are probably concerned in every case, but they would be insufficient of themselves to account for intussusception, unless there was present some predisposing cause as well—either anatomical, as in shape of bowel, or pathological, as the presence of polypi, etc.

These are a few facts with regard to the shape of the large and small bowel in infants, which may have some bearing on the causation of intussusception. On examining a large number of cases post mortem I found that the shape of the infantile colon is in most cases different to that of the adult, and this difference is such as to render intussusception of this portion of the bowel in the child easier than it would be in the adult. In the latter the colon is widest at the cæcum and narrows gradually towards its termination; whereas the infantile colon is as a rule widest in the transverse portion. The cæcum and first portion of the ascending colon form quite a distinct segment, called "caput coli," by Keith.¹ Between this dilated portion, or "caput coli," and the larger transverse colon there is a narrower segment of the gut, comprising most of the ascending colon and the hepatic flexure. The descending colon is even narrower than the ascending; and the sigmoid forms another dilated segment between the descending colon and the rectum. Photograph (1) from a child aged six months shows these points very well. In some cases, however, the infantile colon resembles that of the adult, in being widest at the cæcum and gradually narrowing towards its termination.

With regard to the small bowel, I found that in a considerable number of cases the terminal portion of the ileum was much wider than the preceding portion. The small intestine gradually narrows in calibre from the duodenum towards the termination of the

ileum, but in some cases it suddenly widens out again in its terminal portion.

Photographs 2 and 3 show this widening out of the terminal portion of the ileum very well. This irregularity in the form of the colon, and the widening out of the terminal portion of the ileum, may both be of importance in considering the etiology of intussusception. It is impossible to get a common cause for all varieties of intussusception, and it is certain that most of the chronic forms, and a few of the acute, are due to polypoid growths, whether in large or small intestine. No such explanation, however, can account for the majority of acute cases. Of the different varieties of intussusception, the most common are those beginning near or at the ileo-cæcal valve. That variety beginning at the ileo-cæcal valve used to be considered the most common, but according to Corner² the commonest variety begins a few inches above the ileo-cæcal valve. Moreover, intussusception commencing at the tip of the cæcum is now recognised as a very common form. The double varieties also owing to closer observation are now believed to be quite as common, if not more frequent, than the single forms. Without, however, entering into any discussion as to which is the most frequent variety, it is quite certain that it is very common for an intussusception to begin either at the tip of the cæcum or at the lower end of the ileum. According to Corner³ the most common position for an intussusception to begin is in the last inch of the ileum; and moreover, he asserts, that a lateral and not a circular origin is most common. Dr. Clubbe⁴ also says "that in intussusceptions beginning in the ileum, the first infolding seems frequently to start at the side of the bowel and always opposite the mesenteric attachment." He also states "that cases which are primarily enteric generally start a few inches from the cæcum."

In considering the etiology it is very important to first determine, if possible, the exact position of the primary invagination, and in the enteric variety, according to the above-mentioned authorities, this is in the terminal portion of the ileum and on the side of the gut opposite the mesenteric attachment. You will notice that this is the position also of Peyer's patches.

D'Arcy Power⁵ asserts that the disproportion in the diameter of the large and small bowel in children is a causative factor. He says: "The colon develops much more rapidly in the first few months of life than the

ileum, so that it may often occur that the end of the ileum, already physiologically prolapsed into the colon, may be the starting point of invagination." But surely the disproportion of these two segments of the gut is great enough in adults, it is indeed much greater than in children. Moreover it is very doubtful whether intussusception, commencing at the ileo-cæcal valve, is as common as it was at one time thought to be. The invagination seems to begin, in most cases, just above the ileo-cæcal valve. Allowing, however, this theory to be correct, it even then only accounts for one of the numerous varieties.

Nothnagel attributes the disease to irregular muscular action in the wall of the gut. By vivisection experiments he proved that intussusception can be produced by causing irregular muscular action of the walls of the intestine by stimulating portion of the bowel with the electric current. But such experiments do not prove that a similar mode of formation occurs in the ordinary pathological intussusceptions met with in infants. If this theory be correct, then one would expect the disease to be far more common than it really is, because intestinal troubles, presumably with irregular peristalsis, are common enough in children. Moreover, in my very limited experience it is the healthy-looking and well-nourished infant that is most commonly affected by intussusception, and as a complication of diarrhoeal diseases it is distinctly uncommon. Hence, I think that we must look for a predisposing cause in some anatomical rather than pathological condition. Now intussusception is so much more common in children and infants than adults that there must be some condition present in the intestine of children which predisposes to invagination, and which is absent in the adult gut.

Koplik,⁶ in his book on diseases of children, states that 50 per cent. of all cases of intussusception occur before the age of 10 years. Sir Frederick Treves⁷ likewise makes the same statement. In an analysis of 110 cases reported in the *Intercolonial Medical Journal*, 1901, there were 90 per cent. of cases under one year old. Out of two series of cases, 40 in all, recorded in the *Annals of Surgery*, 1905, the youngest was three months and the oldest 9½ years. Very few cases have been reported in infants under one month old. I think we may take the estimate given by Holt as being correct—that is, that at least three quarters

of the cases occur during the first two years of life and one half of them between four and nine months.

Now, any theory accounting for intussusception must explain this age incidence. A study of the conditions under which agonic invagination of the intestine occurs will not be out of place in considering the etiology of intussusception. Agonic invagination is very much more common in children than adults, the proportion being, according to Nothnagel, one to fifty. Holt¹¹ says that agonic invagination is met with in 80 per cent. of the post mortems on infants. Now the great predominance of agonic invagination in the child is in accord with the predominance of pathological intussusception during the same years of life, and suggests that there is a similar cause underlying both forms of invagination. Can both be explained by the theory of irregular peristalsis occurring in the more irritable bowel of infants? There is no doubt that agonic invagination can be explained in this way, the invagination being aided by the thin bowel wall in children. But if pathological intussusception was also due to irregular peristalsis, as suggested by Nothnagel, then one would expect this form to bear some points of resemblance to the agonic variety. But, as a matter of fact, they differ in very many respects. Agonic invagination is more common in the jejunum, and is seldom if ever met with in the large bowel; there are usually several to be found at irregular intervals along the bowel, and they are often of the retrograde variety. Pathological intussusceptions, on the other hand, are more common in the region of the ileo-cæcal valve, they frequently involve the larger bowel, they are generally single, and seldom of the retrograde variety. These facts, I think, exclude irregular peristalsis as the sole cause of pathological intussusception, and, if it has any influence at all, it is only secondary, and there must be a primary causative factor as well. By studying the chief differences between the intestine in children and adults, some light may be thrown upon the subject. These differences are, briefly:—(1) The thinness of the infantile gut; (2) the relatively longer mesentery in the child; (3) the lymphoid tissue is relatively more abundant in children and infants than in adults; (4) there is usually a slight widening out of the terminal portion of the ileum in the infantile gut; (5) the cæcum being more completely surrounded by peritoneum, is more mobile in the child;

(6) the shape of the colon is somewhat different, being more irregular in the child.

Now, each one of the above facts is of importance in considering the etiology of intussusception. The thinness of the bowel wall, together with irregular peristalsis, is sufficient to account for the more frequent occurrence of agonic invagination in the child. Other things being equal, invagination will occur far more readily in a thin-walled bowel than in the thicker and more resistant bowel wall of the adult. This factor, moreover, is no doubt an important one in the causation of intussusception, but there must be some other predisposing cause as well. The greater length of the mesentery is not in itself sufficient to account for the greater frequency of intussusception in the infant. The lymphoid tissue in the bowel may have an important bearing on the occurrence of intussusception in children and infants. I was first led to the belief that the lymphoid tissue might be a factor of importance in intussusception, by finding Peyer's patches and solitary follicles very much hypertrophied in two cases of intussusception, which I had an opportunity of examining post mortem. The hypertrophy in these cases was most marked in the terminal portion of the ileum, and it may have only been a secondary condition following on the congestion due to the intussusception; but the hypertrophy appeared to me to be out of all proportion to the congestion of the bowel wall. Photographs 4 and 5 are from the two cases mentioned above. They both show the enlarged Peyer's patches in the terminal portion of the ileum.

In support of this theory the following facts may be mentioned. Intussusception is more common in the lower ileum than in the jejunum or upper ileum, and it becomes increasingly more common the nearer the ileo-cæcal valve. Peyer's patches also become larger and more numerous in the lower ileum, and adenoid tissue is very plentiful indeed in the last two or three inches of the small bowel and in the cæcum. According to Mr. Corner and also Dr. Clubbe¹ a lateral and not a circular origin is most common in intussusceptions beginning in the small bowel, and the invagination generally commences opposite the mesenteric attachment; but that is also the position of Peyer's patches. If such patches were hypertrophied or swollen, they might act in the same way as a polypus. Moreover, Peyer's patches stand in greater contrast to the thin-bowel wall in children

than in adults. Then, again, intussusception is most commonly met with just at that period of life in which the lymphoid tissue occurs in the bowel in greatest quantity—that is, in infancy and childhood. It is extremely rare to meet with the condition in infants under the age of one month, and J. R. Berry has shown that lymphoid tissue is only developed in the cæcum and cæcal apex during the first week after birth.



Enlarged Peyer's patches in the terminal portion of the ileum, from a case of intussusception in a child age 7 months. (a) Colon; (b) Hypertrophied Peyer's patch; (c) Appendix; (d) Ileo-cæcal valve.

In children and infants, according to Osler,¹⁰ Peyer's patches become swollen from very slight causes, whereas in adults, apart from enteric fever, they are rarely affected. To determine the condition of Peyer's patches in children suffering from different diseases, I carefully examined the bowel in 30 cases. The ages ranged from 3 to 18 months. The majority of these infants had suffered from acute gastro-enteritis, and of these none showed any hypertrophy; in a few the patches were atrophied, but most of them showed no alteration from the normal. The cases which showed the most marked degree of hyper-

trophy of Peyer's patches were two cases of intussusception, one case of diphtheria, and two of posterior basic meningitis. In a third case of the latter disease the lymphoid tissue was atrophied. If such swelling of lymphoid tissue is an important factor, one would expect to find intussusception more common in conditions where Peyer's patches are always enlarged, as in typhoid fever. Now, typhoid fever is very rare in infants, and in older children and adults the greater thickness of the bowel wall would prevent the occurrence of invagination. Moreover, intussusception does sometimes occur during typhoid fever in children. Koplik records a case of typhoid fever in a child of three years where intussusception occurred as a complication.

Pertussis is another disease where lymphoid tissue is abundant and where intussusception sometimes occurs as a complication.⁶ Tubercular disease of the intestine is another condition where Peyer's patches are enlarged, and here again intussusception has been met with as a complication. There is such a case recorded in the *Lancet*, April, 1903,⁷ the cause being given as irregular peristalsis, due to the presence of ulceration; but I think that the enlargement of the Peyer's patches was probably the causative factor.

The presence of hypertrophied Peyer's patches, the comparative thinness of the bowel wall, the relatively long mesentery, and, the increase in calibre of the last inch or two of the ileum, may all play some part in the causation of intussusception commencing in the small bowel; but there must be some different factor at work in the large gut. Yet here again intussusception begins most commonly where lymphoid tissue is most abundant, that is at the cæcal apex.

Other factors at work in the large bowel are:—1. As mentioned above, the shape of the colon in infants—presenting as it does three dilated segments, with narrower portions between—is such as would predispose to intussusception. 2. The "caput coli," being more completely surrounded by peritoneum, is much more mobile in infants than adults. The mobility of this portion of the bowel in the young is shown by the frequency with which the cæcum and appendix are found in strangulated herniæ in infants and children. 3. Another factor of importance in the large bowel is the presence of anti-peristalsis. The experiments of Cannon⁸ on the movements of the intestine, studied by means of the Röntgen rays, demonstrated the

fact that anti-peristalsis is a constant factor in the digestive process in the large intestine. The same does not seem to be the case in the small bowel. Moreover, anti-peristalsis seems only to occur in the ascending and transverse colon and in the cæcum. According to Keith⁹ there are four forms of intussusception beginning in the colon:—1. Commencing at the fundus of the cæcum. 2. When the contracted cæcal sphincter—formed in man by the upper segment and two retinacula of the ileo-cæcal valve—forms the commencing point. 3. Where the so-called "cæco-colic sphincter," or the narrowed portion of the ascending colon at its junction with "caput coli," forms the starting point of the invagination. 4. Where the ileo-cæcal valve or sphincter forms the apex of the intussusception. This latter form, however, is better considered with intussusceptions beginning in the small bowel.

In addition to the above varieties other points where there is marked narrowing of the colon might form commencing points for invagination. Now there are points of narrowing at both ends of the transverse colon, also at both ends of the sigmoid, and at the cæco-colic sphincter or outlet of the "caput coli." But owing to the more fixed position of the ascending colon in infants it would be difficult for an intussusception to begin in the ascending or commencement of the transverse colon.

Out of 40 cases I examined post mortem under 18 months of age there was an ascending meso-colon in 10 and a well marked descending meso-colon in 30. Hence, in infants the descending colon possesses a greater range of movement than the ascending, and being very much narrower than the sigmoid it might easily become invaginated into the latter; and, as a matter of fact, intussusception beginning in this region is not uncommon.

REFERENCES.—(1) Keith: *Journal of Anatomy and Physiology*, 1903. (2) Corner: *Annals of Surgery*, 1903. (3) Cluthe: *British Medical Journal*, June 17 1905. (4) D'Arcy Power: *Hunterian Lectures*, 1897. (5) Nothnagel: *Diseases of Intestines and Peritoneum*. (6) Koplik: *Diseases of Children*, 1906 Edition. (7) Treves: *System of Surgery*. (8) Cannon: *American Journal of Physiology*, 1902. (9) Osler: *Principles and Practice of Medicine*, 4th Edition, p. 9. (10) Holt: *Diseases of Children*, 2nd Edition, p. 426.

(Read before the New South Wales Branch of the British Medical Association.)

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URTICARIA—RELATION TO GYNÆCOLOGY.

By William T. Chenhall, M.D., F.R.C.S.E., Sydney.

GYNÆCOLOGY reflects some curious and extremely interesting pathological sidelights, and among these the various reflex neuroses are of great importance. Their origin is frequently as obscure as the manifestation is remarkable. Some are improperly classified as such, and what occurs really as a coincidence is regarded as a causative factor. In two cases recently seen the manifestation was that of a severe urticaria occurring concurrently with disturbances of the function of menstruation. In one case amenorrhœa was associated with the outbreak, and in the other menorrhagia with dysmenorrhœa due to the presence of fibroids. Consideration of the first case will suffice for my purpose.

A.I., seen in consultation in October last, single, aged 21 years, passed through a normal period of menstruation in September, and was again due on October 12th. Menstruation had not appeared on the 14th, though, except from some constipation from which she habitually suffered and occasional attacks of indigestion, she felt well. Returning from the theatre at night on the car she felt chilly, and upon arrival home drank a glass of hot milk. Sleep was disturbed by abdominal distress; she felt "as if she were going to be unwell." Breakfast next day consisted of tea and toast, lunch of fresh raw tomatoes, bread and butter, and at evening she ate cold roast beef and salad. The bowels had acted after breakfast. Just before a late supper on the same night she felt "as if a flea or something of the kind was biting the back of her neck." A few minutes later a number of spots appeared around the area, and within half-an-hour numbers of them were scattered over the chest and waist. The face became greatly swollen and the surface of the body itchy and irritable. A few hours later she vomited, but the output, which was sour, contained only mucus and bile-stained fluid. Previous to my consultation salines had been administered, hot baths containing soda given, calamine lotion, and later camphor and menthol applied locally. Hot fomentations were applied to the abdomen for the relief of pain. The temperature was 102° F.

Upon examination, the characteristic lesions were those of urticaria. The wheals were of various sizes, flattened firm, and with uniformly red or with whitened centre. In parts confluence was so marked that large

white areas were boldly depicted upon a bright, reddish "angry-looking" ground. Almost the whole trunk of the body was thus affected, the itching and stinging being intolerable. Scratching immediately developed fresh wheals at the seat of contact, and simultaneously wheals developed in other parts where the condition was quiescent and not in direct nerve relationship with the part that was scratched. This phenomenon was distinctly interesting, being in conformity with the characteristic unsymmetrical distribution of the wheals. The tongue was thickly coated and the breath offensive. The breasts themselves were not painful, though the skin covering their surface was almost wholly erythematous, here and there a large white blotch showing up against the red perspective. The face at first gave one the impression of cutaneous cellulitis.

From the appearance of the face, breasts and lateral surfaces of the abdomen it would have been difficult to arrive at a definite diagnosis, especially in the absence of a history of exciting causes of urticaria; but, in other parts, the lesions were so characteristic as to afford conclusive evidence.

Menstruation appeared on the third day and relieved the pelvic pains, and at the same time a remarkable amelioration of the cutaneous irritation also occurred, the burning feeling ceasing *pari passu* with the increased flow. This relief, concurrent with the onset of menstruation, forms my warrant for closely considering the subject. The coincidence is interesting; but is one justified in regarding the two conditions in the relation of cause and effect? Such relationship can only be in part true. I shall not discuss the varieties of urticaria, the various surfaces affected by the wheals, nor the peculiar local and constitutional idiosyncrasy which exists; but it is difficult, after a thorough survey of this disease, to accept the view that all cases—in fact, any of them—are reflex in origin.

If urticaria be reflex in origin, what explanation will suffice when wheals which arise from mechanical irritation, such as scratching, follow a linear or crossed arrangement corresponding to the path of excitation, whereas, except for variations due to different degrees of tension in various regions of the skin, the configuration of the wheal is usually round? Why should such substances as shellfish, tinned foods, pork, mushrooms, cucumbers, or strawberries act reflexly through the pneumogastric nerve, and pro-

duce such phenomena upon the skin and mucous membranes as urticaria, when other articles of food which cause equal distress in the stomach do not produce a like result? Does it mean that different substances are capable of producing different excitations in the pneumogastric nerves and that various forms of nerve force are thereby initiated? Where shall we find analogy or evidence which will confirm any such view? Why is it that some articles of food and certain drugs act in this way only upon certain people? This we do not know, and in our ignorance protect our opinions behind what we term "idiosyncrasy." That such a condition exists will be at once admitted, but of its nature we know little. Will the occurrence of urticaria following the distribution of hydatid fluid within the abdominal cavity admit of explanation as a reflex phenomenon? What theory of reflex irritation will explain the occurrence of convulsions, facial twitchings, and ocular disturbances due to intestinal worms in one case, and the occurrence of urticaria in another? Will assumption of the existence of some neuropathic susceptibility suffice? It may help in explaining the nerve disturbance of the former conditions, but does it explain the variation shown by urticaria? Clearly, it does not. If reflex disturbance alone be the cause, why do not those who suffer intensely from seasickness—in all conscience the most distressing of stomach disturbances among certain people—develop urticaria? The rapidity of development of urticaria after ingestion of certain articles is so rapid, at times, that one can scarcely believe absorption, circulation and distribution, and action upon the nerve system to have occurred, and too hastily attributes the effects to reflex action. But some alkaloids and such drugs as nitroglycerine and amyl nitrite act with equal rapidity when given by the stomach.

Nervous susceptibility or predisposition to urticaria and a particularly reactive idiosyncrasy to certain irritants will generally be admitted as causative factors, even though we little understand what we mean by the application of such convenient terms. One person will rapidly respond to the local irritation of a wasp-sting, another after eating lobster or even strawberries, a third after taking such a drug as iodide of potash, and another (as in this case) when some disturbance of menstruation occurs, and the real exciting cause escapes discovery.

"Reactive idiosyncrasy" had never yet been proved in this patient since it was her first attack, and even admitting a nervous susceptibility, it was impossible to find a specific cause, since the outbreak did not occur until 20 hours after exposure, and no extraordinary diet had been taken. Can we place those cases where urticaria arises after a meal, whilst undressing, when heated in bed, or when leaving a warm one, in analogy with this one, and attribute each to a neurosis?

Upon the grounds already discussed I fear we cannot, for does it necessarily follow that because the outbreak of wheals occurs at certain times and under certain conditions that these conditions are *ipso facto* its cause? The phenomenon does not at all correspond with the usual vaso-motor response to sudden alteration in the temperature of the skin. Even admitting—which I do frankly in this patient—the existence of exalted excitability of the vaso-motor nervous system and diminished control of higher centres, one is, still, quite unable to find in the nervous system, a specific first cause for the outbreak. Further, the chain of evidence that the irritation and wheals were due to some reflex disturbance initiated in the reproductive organs would at first sight appear complete. How else could one reconcile the sudden diminution coincidently with the onset of menstruation? Analogies, though rare, are not wanting to support such contention. Fox quotes 15 successive recurrences following the passage of an uterine sound, and cases following application of leeches to the os uteri have been recorded by Scanzoni, Schraum, and Rosenberg. Such evidence, alone, is insufficient to prove that the occurrence was reflex in origin, and little more is forthcoming. The bites of leeches are known to produce wheals, and Professor Wright produced urticaria in dogs after intravascular injection of leech extract. Similar results followed injection of peptone or crab or mussel extract, and suggest the absorption of some substance following leech application to the cervix.

Analogy with the constitutional disturbance and rise of temperature which occasionally follows passage of a male catheter does not help, for that question itself remains undetermined. Hebra quotes association with pregnancy, and Wilson immediately following parturition apart from sepsis. But toxæmia in pregnancy is not infrequent, and it is readily conceivable that excretory func-

tions called upon to perform elimination of waste products of foetal and maternal metabolism should be less capable of dealing with any poisonous, irritating substances absorbed from the stomach and intestine. Moreover, albuminous putrefaction and resultant ptomain and leucomain production are more liable to occur when faulty digestion exists, as it often does, in pregnancy. Sepsis, *per se*, has not been shown to be a cause of urticaria; hence its occurrence quoted by Wilson probably depended upon toxæmia of another kind. Long Fox quotes cases occurring "in ovarian and sub-acute uterine irritation acting with a naturally sensitive nervous system at menstrual epochs or during climacteric changes," but such irritation would be but part of a general "neuropathism." Something more than ovarian irritation must be assumed; how else can one explain the infrequency of occurrence of urticaria, seeing that ovarian lesions are so common? At best, Fox's observation can only be regarded as a coincidence. Much more difficult of explanation, and not unlike this case, is one reported by Frank, of Prague, where a woman was attacked at each menstrual epoch by severe generalised urticaria, which ceased after a successful salpyngotomy for a hypertrophied ovary and thickened tube. Barduzzi and Pick have observed similar cases, and I confess an inability to explain them. Suspicion rests upon administration of some drug, such as quinine or potassium iodide, to which a reactive idiosyncrasy existed, at each period. It is difficult to understand how so frequent an occurrence as aberration of the function of menstruation should so seldom, and indeed in any way, alone become the direct causative factor in production of urticaria.

Assuming the existence of exalted excitability of the vaso-motor nervous system with diminished control of higher centres, one cannot easily understand wheal formation, unless it be purposeful. Clearly and without doubt the phenomena of urticaria are, in my opinion, signs of a constitutional disorder due to some irritant which, circulating, acts upon the vaso-motor mechanism, possibly in part upon its centres or the nerve elements within the vessel walls, though chiefly directly upon the endothelium of the terminal capillaries of the capillaries and causes the lesions. The production of wheals from vegetable, animal and mechanical irritation cannot rightly be regarded as exactly the same thing as

generalised urticaria associated with constitutional disturbance, though their formation in this manner lends considerable support to my view that wheal formation arises from the presence of some irritant within the skin or subcutaneous tissues, and which there acts upon the peripheral nerve mechanism or directly upon capillary cells. I have never seen a case where, in the absence of co-existent urticaria of constitutional origin or of pruritic dermatosis, one could produce by irritation a "factitious" urticaria upon normal healthy skin; nor is it always possible to excite "factitious" wheals when a true urticarial state exists.

The question, then, arises, is urticaria in the case I have recorded a true angio-neurosis? If so, the superadded cutaneous manifestation renders it different from all other conditions which we attribute to vaso-motor disturbance. A true angio-neurosis is clearly not an inflammatory process, since it lacks some of the essential phenomena of the latter. In ordinary vaso-motor phenomena exudation of serum and diapedesis are absent, pain is not felt, and what might at first sight appear to be true oedema is really due to dilated vessels and momentarily disappears, the whole manifestation being quite evanescent and ephemeral. Moreover the constant presence of a temperature in urticaria is important.

One turns to the histo-pathology for some explanation. Some authorities hold that the processes are not those of inflammation, and Auspitz believes it due to reflex irritation from sensory to vasal nerves, causing paralysis of vaso-constrictors and irritation of vasodilators—in short, an angio-neurosis. Fox agrees, but recognises a non-plastic oedema with absence of trophic disturbance as well as histological substratum. But, surely, the response of the skin and subcutaneous tissues when wheals are formed by vegetable, animal or mechanical irritation, be it never so mild, is that of an inflammatory process. I use Adams' conception of inflammation, that it "is the series of changes constituting the local manifestation of the attempt at repair of actual or referred injury to a part," or, briefly, "the local attempt at repair of actual or referred injury" as the basis of this argument. If the cutaneous response following irritation by a nettle is not one of attempt at repair, what is it? Truly, by some observers the occurrence of diapedesis is denied, and the characteristics of the

œdema—flat swelling, with whitish central area—are not those of inflammation. But may not the whiteness be due to a sudden compression, or, rather, contraction of the cutaneous capillaries in the centre of the area of each wheal, and the redness around be an inflammatory reaction? I cannot endorse Unna's view that the œdema is due to venous stagnation hindering normal absorption of lymph; and Gull's theory that spasm of the skin muscles is the essential factor seems to me wholly untenable.

Urticaria is more than an angio-neurosis, for in it there occur exudation of serum, swelling and diapedesis, and it is impossible to regard it as less than an inflammatory change of some kind. Here the whole importance of the issue rests. We know that in unicellular organisms injury, unless it destroy the individual, is followed by reactionary process of a twofold character. In the first place destruction is brought about by a process of intra-cellular digestion or removal by extrusion, and the second reactive process is one of new growth. The response to injury in unicellular—and the same holds true for multicellular—organisms is essentially reparative. We recognise that the broad principle of response to injury throughout the animal kingdom, from the lowliest to the highest forms, is one of defence and repair, and that no line of demarcation separates a truly inflammatory set of phenomena responsive to injury from one that is non-inflammatory. The irritant in urticaria need not necessarily be the same in all cases, but clearing presents obscurities and delusive theories, one may recognise a common fundamental causative factor, the presence of an irritant upon the skin or reaching that structure through the circulation. Such irritant, formic acid in the case of the nettle, alkaloidal products of albuminous putrefaction, or the products of pathogenic organisms not destroyed by cooking when certain foods are taken, causes inflammatory reaction in proportion to the potentiality of the irritant, the state of the body and tissue affected. Exudation would be less in dense tissues, but pain, tension and irritation much increased, whereas in more yielding tissues the pain and irritation is less though the swelling may be greater. It is impossible to deny a likeness to inflammation, for we find these very conditions in urticaria. Following Virchow's view such irritant stimulates metabolism in the fixed cells and the exudation forms pabulum for

increased cellular activity. Wheal formation is, therefore, a reactive, purposeful effort in which every minute structure fulfils its duty, the exudation probably serving pabulum to the cells and acting as a diluent of the irritant within the skin. It would be absurd to regard wheal formation as purely diagnostic, just as it would be to discount, in the processes of recovery from measles and scarlatina, the value of the cutaneous structures, whose performance of function is so constant as to warrant belief that it is purposeful. We now know, since the vascular changes which accompany inflammation can occur quite independently of any central nerve influence, that there must be some peripheral mechanism controlling the blood vessels. This mechanism may be controlled by peripheral nerve cells within the vessel walls, or, for all we know, the control may be wholly, or in part, idio-cellular. It is not improbable—indeed, far from it—that the endothelial cells, retaining a reminiscence of more embryonic condition, can react directly to stimuli, and that they are capable of idiopathic contraction and relaxation under appropriate excitation. These cells are capable of certain independent activity, not unlike that of the amoeba or the wandering phagocyte, of taking up microbes, and, surely, pseudopodia extension and enclosure of non-motile bacteria is more remarkable than any simple capability for contraction and expansion under stimulation by an irritating alkaloid. Klebs and Severini have demonstrated this contractibility of endothelial cells of capillaries, and Meltzer showed by experiments on the rabbit's ear that arterial capillaries regained their tenacity without the aid of extrinsic nervous influence, and before any sign of nerve regeneration could be detected.

The sum of the processes of wheal formation is, in my opinion, purposeful and reparative, though such view is teleological only so far as it constitutes a predetermined end. Excepting cases due to local irritation of specific nature and those dependent upon a peculiar idiosyncrasy to particular reaction—itself a curious and obscure, yet important factor in causation of urticaria—I hold that all cases are associated with gastro-intestinal disturbance, and that some irritants ingested with the food, manufactured within the canal or some purin body formed within the system, enters the circulation and acts upon the peripheral vaso-motor mechanism, or, more probably, upon the endothelial cells of the

capillaries. Absorption of hydatid fluid from the peritoneum would come under the same category, since Brieger has isolated from this a highly toxic substance, probably of the nature of an alkaloid. This view of constitutional poisoning in urticaria is supported by the production of wheals when such toxic agencies as anti-toxins and serums are introduced hypodermically into the circulation, by their occurrence during prodromal and subsequent stages of infective fevers and accompanying the paroxysms of malaria, lithæmia, or gout, or in association with sepsis following operation.

Various alkaloidal bodies—ptomains and leucomains—formed during the process of albuminous putrefaction as well as those ascribed by Gantier to anærobic fermentation, or formed in the tissues of the higher animals in the absence of air or presence of insufficient oxygen are, without doubt, the true causative factors. Most of these bodies are derived from ammonia by substitution of various radicles for one or all the nitrogen atoms of ammonia. Such bodies are known among the products of albuminous putrefactions within the intestine, and are liable to rapid absorption. False and ill-founded views of causation of urticaria arose before much was known of ptomains and purin bodies and their poisonous effects upon the system, and have elevated concurrent occurrences into the position of exciting causes. Upon these false premises are based the assumed causative relationship of urticaria to derangements of the reproductive organs. Thorough unravelling of the etiology, sometimes complex and compound, will discover a constant underlying factor of causation in all cases. Then, and then only, will treatment be applied upon rational lines. The amelioration of distress which followed the onset of menstruation in this case was due partly to withdrawal of toxine from the blood, partly to diminution of excitability of the nervous system, and especially of its sensory distribution, but mainly to the treatment which had been adopted, though this should have been more energetic.

In all cases, therefore, if the stomach contain food it should be emptied, for by this means alone can one remove any irritant recently ingested. The stomach may be washed out or an emetic of mustard and water or zinc sulphate may be given, or a hypodermic of apomorphine administered. The rectum and lower bowel should be simi-

larly emptied by enemata containing sulphate of magnesia, for besides removing any absorbable toxines, such as indol and skatol and ptomains—putrescin, cadaverin and neurin—there present, peristalsis is stimulated and flow towards the intestine is established. A cachet containing calomel and compound jalap powder or a hot seidlitz with sulphate of soda added to the contents of the blue paper should be given at once. If vomiting be present it will be better to administer calomel in grain or half-grain doses every hour until three to six grains have been given. This should be followed by drachm doses of sulphate of soda until free purgation is induced. The kidneys should also be stimulated so that the floodgates of escape for noxious substances within the system may be opened. Patient may be given hot milk and water or apollinaris and alkaline, saline diuretics which act upon the secreting epithelium without disturbing the renal vaso-motor mechanism and blood-pressure. For this, acetate of potash is best, and if the urine be unduly acid, bicarbonate of potash may be added. In one case I found subcutaneous saline afford great relief, and believe that it should prove of undoubted value. Moreover, it is rational. Protection of the skin by linen bedgowns, clean sheeting, avoidance of all sources of local irritation, such as sudden variations of temperature, and administration of milk and soda, peptonised milk, or milk and water are essentials in treatment. Local application of a lotion containing subacetate of lead gr. viii, ac. hydrocyan. dil. dr. ii, alcohol dr. iv, aqua oz. i, is very comforting when allowed to evaporate from the painful areas.

When acute irritation has subsided, strict care in diet and daily evacuation by a dose of Esvach or Carlsbad before breakfast will promote recovery and prevent recrudescence. A frequent dusting of the skin with talcum will prove comforting. Nocturnal outbreaks justify suspicion of animal irritation; but even in these cases one must not lose sight of the condition being possibly constitutional, and the local irritation merely a coincidence. Idiosyncrasy, gouty and lithæmic states, blood dyscrasia, malarial infection, will all be remembered as predisposing factors. Invariably with these will be found weakened powers of digestion and defective metabolism, which diminish the neutralising and eliminating powers of the system upon any toxine which is present. It was not my intention

to do more than prove that no direct relationship exists between urticaria and lesions of the reproductive organs; but as nothing in the whole range of therapeutics affords such an example of ill-founded empiricism, I may be pardoned for suggestions upon treatment.

The nervous system has been treated by nitric acid, strychnine in full doses, and arsenic as tonics, none of which would to any degree aid elimination or neutralisation of an irritant; by lesseners of nervous excitability, atropine, bromides and anæsthetics, which by diminishing functional activity delay the very processes of metabolism and excretion which ought to be stimulated, and hence prolong convalescence; by extract of ergot, ergotine, perchloride of iron and hamamelis for their action—based on imperfect conception of the pathology—upon the vaso-motor system; by strophanthus, iodide of potash, ichthyol, aconite, sulphuric ether, gelsemium, pilocarpine and nettle-tea, each for a supposed specific action.

The list of external applications is equally ridiculous, and ranges from most soothing powders to lotions of strong antiseptic power, such as bichloride of mercury (1 in 1000).

A hypnotic is perfectly justifiable, and is sometimes imperatively demanded in order to overcome the exhaustion and irritation of sleeplessness, but beyond that influence little good can be expected. Hyoscyne hydrobromide gr. $\frac{1}{10}$ (maximum dose $\frac{1}{4}$ gr.) hypodermically is best for the alkaloids of hyoscyamus, like those of belladonna, obviously increase metabolism through the circulation and respiration, and increase the solid excretions of the urine. Moreover, it controls restlessness and induces several hours' deep sleep, and the laxative and carminative effects of the drug upon the bowel aid the action of calomel and jalap or salines given to clear the intestine. No other drug fulfils these requirements so well, but due care and precautions must be exercised in its use, owing to its powerful action in proportion to the dose.

General ill-health may demand change of air and scene, remembrance afterwards of any reactive idiosyncrasy known to exist. Any constitutional ill-health, such as gout or malaria, or more specific mischief such as constipation or dyspepsia, will require treatment. These, I would repeat, are like amenorrhœa in this case, but manifestations of constitutional ill-health, and are not the direct exciting cause of urticaria.

My conclusions are that all cases of urticaria, except those due to local vegetable, animal or mineral irritation, are due to a form of poisoning—the urticaria itself being but a sign; that this poisoning is due to toxins which, circulating, reach and act directly upon the peripheral vaso-motor nerve mechanism or directly upon the endothelial cells of the capillaries, and thus produce the wheals; that perfection in treatment can only be reached when with full knowledge of each and all these toxins we shall be able to neutralise their effects by antitoxines; that, meantime, rational treatment must be directed towards aiding the system in overcoming and eliminating the circulating virus as rapidly as possible.

In conclusion I hazard opinion that it is untrue, or, at any rate, it is a gratuitous assumption for which there is no warrant in facts, to affirm that there is a direct causal relationship between any known lesion of the reproductive organs and urticaria.

(Read before the New South Wales Branch of the British Medical Association.)

CLINICAL AND PATHOLOGICAL NOTES.

NOTES OF TWO CASES OF TYPHOID FEVER WITH SYMPTOMS OF CHOLECYSTITIS.

E.E., æt. 13, female; admitted 5/3/07; died 4/4/07. On admission symptoms typical of severe infection, temperature kept high, delirium, loss of flesh and emaciation. After a few weeks temperature began to come down, when sudden severe pain was felt just above and to the right of umbilicus, extending up to gall-bladder region, expression anxious, marked abdominal hyperæsthesia, temperature subnormal; right rectus muscle on guard. Perforation was suspected and abdomen opened. Gall-bladder found very distended, and cholecystitis diagnosed; no perforation present; abdomen closed up. Subsequently gall-bladder discharged turbid bile through operation wound, and patient died ten days later of exhaustion; an irregular septic type of temperature being present.

M.B., æt. 14, female; admitted 7/5/07; died 6/6/07. On admission symptoms severe, delirium, distended abdomen. After a few days, pneumonia at right base with well-marked physical signs. During third week of illness temperature began to remit, and delirium and general condition improved. After temperature remained about normal for

four days it went suddenly up again, with severe pain in right side of abdomen; hyperæsthesia in gall-bladder region; rigidity of muscles; vomiting frequently; dulness beneath the gall-bladder for several inches. Abdomen opened and gall-bladder found very distended. This was aspirated and $4\frac{1}{2}$ oz. of turbid offensive bile drawn off and gall-bladder drained by Moynihan's method. Pure cultures of *B. typhosus* obtained by Dr. Cleland from bile drawn off. Died five days later.

H. G. TYMMS, F.R.C.S. (Eng.)
Medical Superintendent, Perth Hospital

NOTES OF TWO CASES OF TYPHOID FEVER WITH PURPURIC HÆMORRHAGES.

S.B., æt. 26, male; admitted 7/5/07; died 26/5/07. For first week after admission temperature continued at 104° F. and over, and pulse varied from 100° to 140° ; slept badly; abdomen distended; tongue very dry and brown. Profuse eruption of spots. Mouth and gums began to bleed and continued three days before death. Repeated hæmorrhages occurred from bowels, and there was continuous hæmaturia. Many hæmorrhages of a purpuric nature occurred under skin in various parts of the body; some petechiæ were small, others several inches in extent. Some blood was taken during life direct from a vein and *staphylococcus pyogenes* obtained from cultures. Temperature rose to 104.8° before death.

Post-mortem.—There were subserous hæmorrhages beneath the peritoneum, especially large patches in lumbar and iliac regions. The bowel showed extensive typhoid ulceration, and the pelves of the kidneys showed blood-clot and hæmorrhage from the mucous membrane. The appearances of the various organs were those of septicæmia.

R.D., æt. 8, admitted 19/5/07; died 12/6/07. The symptoms of typhoid fever were severe on admission, and profuse hæmorrhage occurred from bowels five days afterwards. The right submaxillary gland became swollen and painful, and the floor of the mouth œdematous. Diarrhœa occurred and was continuous. Retraction of the head with cerebral irritability, cephalic cry, passing into coma. Purpuric hæmorrhages appeared in skin over front of chest and shoulders, scapulæ regions, and inner side of both knees. Temperature rose to 105.2° before death.

Post-mortem.—The body was greatly emaciated. Appearances those of typhoid fever with well marked and extensive ulcerations

in the ileum and cæcum. There were no sub-peritoneal hæmorrhages present, but the subcutaneous extravasations were very marked. There was considerable sloughing of the ulcers in the ileum. The mesenteric glands were enlarged. The liver showed cloudy swelling. The lungs were very congested at the bases.

H. G. TYMMS, F.R.C.S. (Eng.)
Medical Superintendent, Perth Hospital.

The organism, isolated from the bile of the case of typhoid fever, was obtained in pure culture on agar strokes. It was a moderately motile bacillus, giving a uniform turbidity in broth, not liquefying gelatine, and not fermenting glucose, maltose, lactose, or saccharose. It further gave positive Widal reactions with the serum of typhoid patients, so I have no hesitation in stating it to be the true typhoid bacillus.—J. BURTON CLELAND,

M.D., Ch.M., (Syd.), Government Bacteriologist, Perth, W.A.

A CASE OF TETANUS FOLLOWING INJURY TO FACE, WITHOUT SPASMS OF LIMBS OR TRUNK MUSCLES.

H.C., age 35; admitted 12/6/07; died 19/6/07; was admitted under influence of alcohol, with lacerated wounds of forehead, nose and upper lip, having fallen on to face in roadway; wounds very dirty. Five days afterwards complained of trismus; unable to separate teeth more than half inch, previously quite normal. Rigidity and spasm of masseters and well-marked risus sardonicus. Rigidity and spasm of masseters slightly lessened after injection of antitetanic serum and sedatives, but risus sardonicus increased; frequent convulsions of face muscles on both sides; unable to speak or swallow; spasm of pharynx with hiccoughing sound; unable to separate teeth and sweating profusely about face; skin dry elsewhere. No rigidity of trunk or extremities; quite conscious; wounds on face quite healed. Death occurred two days afterwards from failure of heart, with a very slow pulse.

Post-mortem.—Appearances showed only slight congestion of membranes of brain. All the organs of the body were healthy. The tetanic symptoms involved the facial, glosso-pharyngeal and probably the vagus nerves only. This variety of face tetanus is described by German writers, and cases are mentioned in Clifford Allbutt's System of Medicine under name of kopftetanus.

W. TRETHOWAN,
M.B., Ch.M. (Aberd.), Perth, W.A.

REVIEWS AND NOTICES OF BOOKS.

BACTERIOLOGY AND SURGICAL TECHNIC FOR NURSES.

By Emily M. A. Stoney, Superintendent of the Training School for Nurses, St. Anthony's Hospital, Rock Island, Ill. Second edition, thoroughly revised and much enlarged by Frederic R. Griffith, M.D., Surgeon, Fellow of the New York Academy of Medicine. 12mo. volume of 278 pages, fully illustrated. Philadelphia, New York, London: W. B. Saunders & Company, 1906. Cloth, \$1.50 net. Melbourne: James Little. Price, 6s 6d.

The revision for the second edition of this practical work has been most thorough and extensive, the book having been increased in size by the addition of over 80 pages and many cuts. Dr. Frederic R. Griffith, to whom the work of revision was entrusted, has wisely added several chapters of unquestionable importance, namely, bandaging and dressings, obstetric nursing, care of infants, etc., hygiene and personal conduct of the nurse, etc. Nurses will find the glossary at the back of value. As a whole, we think it a compact, useful book, pregnant with just the information that nurses most and constantly need. Many surgical instruments and appliances are figured.

A MANUAL OF OBSTETRICS. By A. F. A. King, A.M., M.D., LL.D., Professor of Obstetrics to the Medical Department of the George Washington University, Washington, D.C., and in the University of Vermont. Tenth edition, revised and enlarged; 688 pages, Svo., with 301 illustrations in text and three coloured plates. Philadelphia and New York: Lea Brothers & Co. Sydney: L. Bruck. Price, 12s 6d.

This work is well known in America, as evidenced by the fact that it has reached its tenth edition. It was designed in particular for the author's own students, to whom it is dedicated. Its chief object is to present in an easily intelligible form such an outline of the rudiments and essentials of obstetrics as may constitute a good groundwork for the student at the beginning of his studies. It should also prove of value to the busy practitioner who cannot spare time to wade through a more elaborate treatise. The chapter on "Fecundation and Nutrition of the Embryo" has been almost entirely re-written, and is brought well up to date. The book is well illustrated, and the author freely acknowledges his indebtedness to others where necessary. Several of the illustrations are taken from Jewett's work, which is also reviewed in this issue. The work is well worthy of a place in every medical library, and the publishers are to be complimented on the excellent manner in which they have performed their part.

ESSENTIALS OF OBSTETRICS. By Charles Jewett, A.M., M.D., Professor of Obstetrics and Gynecology in the Long Island College Hospital, and Obstetrician and Gynecologist to the Hospital. Assisted by Harold F. Jewett, M.D. Third edition. Revised and enlarged. Octavo. Pages vi+414, 30 illustrations and five coloured plates. New York and Philadelphia: Lea Brothers & Co., 1907. Sydney: L. Bruck. Price, 10s.

The object of this book is to place the *essential facts and principles* of obstetrics within easy grasp of the student. It is intended as an introduction to the more elaborate treatises. The book is divided into eight chapters: (1) Anatomy of female genital organs, (2)

physiology of pregnancy, (3) physiology of labour, (4) physiology of the puerperal state, (5) pathology of pregnancy, (6) pathology of labour, (7) pathology of the puerperal state, (8) obstetric surgery. This little work appears to meet the requirements for which it was written in an eminent degree. It bears the impress of having been written from actual experience. It is one of the best books of its size we have seen, and can be highly commended for its concise, lucid and masterly style. The illustrations are very good, especially the coloured plates. Abdominal examination for presentation and position is clearly depicted. The book will be found of value to the busy practitioner who wants to refresh his memory in any point as well as to the student.

AIDS TO THE TREATMENT OF DISEASES OF CHILDREN.

By John McCaw, M.D., R.U.I., L.R.C.P. (Edin.), Physician to the Belfast Hospital for Sick Children. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 4s 6d cloth; 4s paper.

This is an excellent pocket reference to the medical diseases of children. It is full of useful and reliable information. The matter is well arranged, and, considering the size of the book, the descriptions are laudably complete. It has the fault of all books on the medical diseases of children, that the narration breaks off in many cases just when it comes to the interesting part, namely, the surgical treatment. It has the fault, too, of all abridgments, that some subjects do not receive all the notice they deserve. In the present instance, we think this observation applies to the remarks on typhoid fever, diphtheria, and intussusception. Certainly those who from desire or necessity are content to carry their knowledge in their pockets rather than in their heads cannot do better than get this book. It will also be of use to the well-informed as a reminder on some of the rarer diseases, which it is so easy to forget.

Having said so much, the author will pardon us if we offer a few criticisms. We have found no reference to cerebro-spinal meningitis, a disease that is not so very uncommon in childhood. In speaking of the etiology of summer diarrhoea no reference is made to the relationship that has been recently established between that disease and the dysentery bacillus. We notice also that the condition described by Emmet Holt as primary broncho-pneumonia is here described as primary catarrhal pneumonia. The description is meant to cover those cases of croupous pneumonia which in children under four years take on a patchy instead of a massive distribution. As a matter of fact, neither primary broncho-pneumonia nor catarrhal pneumonia is a correct term for this condition.

The close relationship between tubercle and pleurisy has not been sufficiently emphasised, nor has the fact that chronic phthisis is a rare disease in children been made to stand out as it should.

These are minor defects, however, and may be overlooked in the general finish of the book.

LA FIEVRE BILIEUSE HEMOGLOBINURIQUE DANS LE BASSIN DU CONGO. Par le Dr. L. Vedy, Docteur Spécial de l'Université de Bruxelles Médecin de 1^{re} classe à l'Etat Indépendant du Congo. Paris: A. Maloine, Rue de l'Ecole-de-Médecin, 25-27, 1907.

This work was first presented in the *Annales de la Société Royale des Sciences Médicales et Naturelles de Bruxelles*, and is intended to prove that the hæmoglobinuric bilious fever of the tropics is a specific dis-

case. In an introductory chapter the author recounts the various views held by different observers on the nature of the disease, and then summarises them in the four following propositions:—1. Hæmoglobinuric bilious fever is a form of malarial infection, which requires for its development some additional factor, such as climate, natural predisposition, a medicinal intoxication, and sometimes all of these combined. 2. It is an accidental result of the combination of a dyscrasia occasioned by some diatheses, such as the arthritic and some other factor. 3. It is the result of a drug intoxication. 4. It is a distinct disease, occasioned by a specific cause, and can develop independently of every other infection, diathesis, or intoxication. The author discusses fully these theories, and illustrates his remarks by numerous cases thoroughly investigated, and concludes that all the evidence points to the last hypothesis as the correct one. In the concluding chapter he deals with treatment, and divides this into two parts. The first is intended for residents and explorers in the tropical parts of Africa without medical knowledge, and gives in plain terms the method of treatment to be followed in a case of this disease. The second is intended for medical practitioners; the new methods of treatment are described, and the indications for the different methods of treatment are given. With reference to the use of quinine he lays down the following rules:—1. If the hæmatozoa of Laveran are found in the blood in a living state 24 hours after the onset of the illness, a hypodermic injection of 80 centigrammes of some salt of quinine should be given. 2. If the hæmatozoa are not visible, one should *never* administer quinine. 3. If in doubt—that is, if examination of the blood cannot be made—quinine should not be given. We consider this work a valuable contribution to the discussion of a form of tropical disease, and one which is well worth perusing.

THE RÖNTGEN RAYS IN MEDICAL WORK. By David Walsh, M.D. (Edin.). Number of pages, xviii + 443. Illustrations, 172. Size, demy 8vo. Price, 15s net. London: Baillière, Tindall & Cox. Sydney: L. Bruck.

Several years have elapsed since the third edition of this book was published, and at length, after numerous notices have appeared of a new edition being in the course of preparation we are presented with a fourth edition. The author realised that the rapid increase of X-ray literature rendered it no small task to keep abreast of recent advances, consequently the valuable assistance of Dr. Lewis Jones was requisitioned, and to him has been entrusted the whole of Part I, dealing with electrical apparatus.

Unfortunately Part I was completed some considerable time before Part II, and as a consequence some slight injustice has been done to the able work of Dr. Lewis Jones.

This portion of the book is almost identical with various parts appearing in Lewis Jones' book on medical electricity, though the latter is more up to date. However, the fact that Dr. Lewis Jones has written this part is sufficient guarantee that the subject has been ably dealt with. Exception, however, must be taken to a statement appearing on page 19 referring to the discs of Labourand and Noiré. It reads:—"The platino-cyanide disc is directed to be placed on a metallic support at a distance of eight centimetres from the anti-cathode of the tube—that is to say, it must be close to the wall of the tube." Now Labourand distinctly points out that the disc *must* be 7½ centimetres from the anti-cathode, and *must not* be too close to the

wall of the tube. Through not carrying out these instructions, very many failures have resulted.

In Part II Dr. Walsh describes medical and surgical applications. The whole subject is briefly dealt with, and a few new illustrations are given, whilst some of the old ones might with advantage be omitted.

Several radiograms, taken by Dr. Morgan, illustrating some interesting bone cases of Mr. Robert Jones, stand out conspicuously as very excellent work, and it is to be hoped that the fifth edition will contain many more pictures similarly good.

At the end of the book a few pages dealing with medico-legal points are distinctly useful and instructive, and the only thing we regret is that the book is not twice the size so that each subject could be fully dealt with.

We might also suggest that the title be altered to "The Röntgen Rays in Medicine and Surgery," otherwise a false conception might be conveyed of the matter contained therein. As it is, however, the fourth edition of this work is quite up to the standard of its predecessors.

FOLIA THERAPEUTICA: A periodical journal relating to Modern Therapeutics and Pharmacology. For medical practitioners. No. 1. Edited by J. Snowman, M.D., M.R.C.P. London: John Bale, Sons and Danielsson, Ltd. Price, 1s net. Published quarterly.

The aim of this journal is to devote itself to the publication of the material on the progress of modern therapeutics and pharmacology, and to present in a brief manner the methods of treatment and preparations which can be safely recommended for use. The opportunity for accurately testing new methods of treatment or new preparations is not adequately afforded in private practice. These preliminary experiments are extensively carried out on animals in University laboratories, and after the efficacy of the preparations and freedom from undesirable after-effects have been proved the drugs which merit trial at the sick bed are carefully tested in hospitals. This will constitute a real advance in therapeutics; and the evidence given for the reliability of any treatment or drug will consist in the unquestionable authority of the authors by whom, or under whose supervision, the investigations have been made. No. 2, edited by A. Baginsky, M.D., Prof., Medical University, Berlin, and J. Snowman, M.D., M.R.C.P. The journal is attractively produced, and the original articles are by well-known authorities, and it will doubtless meet with extensive circulation.

LETTERS ON PSYCHO-THERAPEUTICS. By Professor H. Oppenheim, Berlin University. Translated by Alex. Bruce, M.D. (Edin.). Edinburgh: Otto Schulze & Co. 1907. Price, 1s 6d.

These letters, selected from a large number written by Professor Oppenheim to patients suffering from various forms of functional nervous derangements of neurasthenic or psychasthenic type, give some valuable information not ordinarily found in text-books. Unfortunately, we are not told in every case how far these have been successful in the accomplishment of the object aimed at by the Professor, but they give concrete examples of the method of treatment described more theoretically by Professor Dubois, of Berne. They are interesting and instructive in showing how much of what appears to be physical suffering is really due to mental states, and they can be recommended to anyone interested in this subject.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH JULY, 1907.

THE AUSTRALASIAN MEDICAL CONGRESS, MELBOURNE, 1908.

LAST month we published the first circular which has been issued by the executive committee of the next session of the Australasian Medical Congress to be held in Melbourne in October, 1908. Professor ALLEN, Professor of Pathology in the University of Melbourne, was elected President at the last Congress held in Adelaide in 1905, and he has lost no time in getting to work, so that the arrangements may be well in hand. Those who know Professor ALLEN will recognise that in him the Congress officials have an able and energetic organiser, and one who will leave no stone unturned to make the Congress a success and worthy of Melbourne. An efficient and hard-working executive committee has been elected, and with Dr. MAUDSLEY as General Secretary, we may rest assured that everything will go on smoothly.

At this stage of the world's medical history it is not worth while to discuss the value of these meetings. In the old world we find that almost every special branch of medicine (including in that term all the various branches of medical and surgical science) has its congress, in addition to the International Medical Congress held in different European cities every two years, and the annual meetings of the British Medical Association held in different parts of the British Empire. The great advantages which result from free and full discussion of important questions of current medical and surgical interest, as well as the opportunities of social intercourse between medical men practising in different spheres, who may be known to

one another only by name, are well known, and no one should return home from such meetings without carrying away some addition to his knowledge and pleasant recollections of social gatherings. For these reasons every medical practitioner in Australasia should become a member of the Congress, and as many as can possibly manage it should attend and contribute his or her share to the proceedings.

The committee has selected two important subjects for general discussion by the whole Congress. First, "the Relation of the Profession to the Hospitals" is a subject which is becoming more and more a burning question and one which needs much serious consideration. It must be admitted that the old idea of the object of hospitals is being lost sight of, and modern conditions require a re-consideration of the circumstances in which a hospital should be established, and the method of raising the means for its maintenance. In some parts of Australasia hospitals are grossly abused and are not managed in the best interests either of the general public or the profession. The difficulty is that under present conditions the Medical Congress is unable to enforce any decisions at which it may arrive as a result of this discussion, and this shows the necessity for what we have long advocated, that the Australasian Medical Congress should become a Meeting of the Australasian Branches of the British Medical Association. Then the machinery would be available in each State for carrying out the spirit of the resolutions passed at these meetings which have important bearing on matters of medical politics.

The second great question for discussion is syphilis, mainly in its social and public health aspects. We understand that it is desired that the different sections should discuss this question in its various aspects as affecting their particular spheres of work. If this idea is carried out, then valuable work on the whole subject of syphilis in Australasia will be ac-

complished. The more one sees of syphilis, the more terrible does it appear in its far-reaching consequences, not only to the individual, but to many innocent sufferers, and if means can be devised to mitigate the enormity of the evil which the disease brings in its train, then the Congress of 1908 will be indeed a memorable one.

The sectional committees are also at work selecting subjects for discussion, and are endeavouring to secure the assistance of those who are at work in different lines. We would remind intending contributors that original observations and work on different subjects should constitute Congress work. Reports of isolated cases, unless used as a text for the discussion of a special subject, should not be brought before the Congress, and there is ample time yet for workers to prepare some special work of an original character to introduce to the Congress sections. Information as to the special subjects being selected for discussion can be obtained from the sectional secretaries.

THE VALUE OF BLOOD EXAMINATIONS.

Up to about twenty years ago examination of the blood was not made, except in a few special cases, such as some forms of anæmia. To-day, blood examination is one of the most commonly recognised and utilised methods of clinical investigation, not merely of cases presenting symptoms of anæmia, but of cases of all sorts of acute and chronic disease, and it is well to consider some aspects of the value of these examinations.

Generally speaking, blood examinations are made in four classes of cases. First, in cases of acute bacterial infection, bacteriological methods are employed, with a view to detect either the presence of organisms themselves in the circulating blood, or of the

special substances which indicate a bacterial infection. Secondly, in cases of anæmia the various kinds of blood-cells are critically examined and enumerated, and we are then enabled to differentiate primary and secondary anæmias. Thirdly, in cases where suppuration may or may not be present, examination of the blood, and the enumeration of the leucocytes, is systematically made, with a view to assisting the surgeon in deciding upon operation or not. Fourthly, the blood is made the subject of special investigation in certain morbid conditions due to the presence of parasites, such as malaria filiarisis hydatid disease; and in some constitutional diseases, such as epilepsy, with a view to the elucidation of their pathology.

As a good illustration of the first of these classes we may take enteric fever. The bacillus itself has been found in the circulating blood in some cases of this disease. But much more commonly the Widal reaction which determines the presence of agglutinin in the blood, is employed as the means of diagnosing enteric fever, and though from time to time some doubt has been cast on the value of this test, there can be no doubt that it remains as a most important and reliable clinical aid in the diagnosis of this disease, when properly applied and with due precaution to avoid errors. The discovery of opsonins in the blood in cases of tuberculosis, staphylococcic and other infections is another most important aid in estimating the progress of the case and in regulating the treatment.

Of the value of blood examinations in the differentiation of the various forms of anæmia there can be no doubt. Specially important in this connection is the aid thus rendered to the clinician in distinguishing primary diseases of the blood and blood-forming organs from those morbid conditions of the blood dependent upon other diseases.

Blood examinations in surgical cases are aids in determining the general state of health before and after surgical procedures; they aid in the diagnosis of conditions inducing lesions subject to surgical intervention, or those complicating surgical diseases on their convalescence; and they present evidence of decided value in determining the presence or absence of an inflammatory lesion, and, in the former event, they may indicate the degree of toxic absorption, and the resistance offered by the animal economy toward this infection. Moreover, the determination of the coagulability of the blood is of value to the surgeon, particularly as means have been devised for increasing the coagulability prior to operation. In the application of the results of a differential leucocyte count, it is important to bear in mind that an increase in the relative number of polynuclear cells is an indication of the severity of the toxic absorption, and the degree of leucocytosis is an evidence of the body resistance toward this absorption. But it is important to note that with a purulent exudate, confined in a dense pyogenic membrane, leucocytic migration may have ceased, and no leucocytosis be found on blood examination; and when a purulent exudate is the result of a tubercular or typhoid infection alone, there is no polynuclear leucocytosis. Moreover, suppurative bone lesion, and suppurative processes on the surface of mucous membranes, show lower counts, probably on account of slower toxic absorption. Hence, while a well-marked leucocytosis is of positive value in the diagnosis of some acute inflammatory lesions the absence of a leucocytosis does not always signify the absence of a suppurative process.

We must remember that laboratory investigations, however important, cannot take the place of clinical diagnostic or prognostic ability. Blood examinations, while

of great assistance in many cases, must not be allowed to override the ordinary rules of clinical diagnosis. There is no question, however, that in the unravelling of obscure pathological processes much assistance will be gained from the large number of investigations that are now being made on the condition of the blood, both from a bacteriological and chemical point of view.

THE MONTH.

Unification of Vital Statistics.

Mr. G. H. Knibbs, the Federal Statistician, has lost no time in acting on the authority of the Minister for Home Affairs to take all necessary steps to bring Australasian vital statistics into line with similar statistics elsewhere. This attempt to unify Australian statistical methods is now bearing fruit, and the affirmation by the Statistical Conference of 1906 of the desirability of adopting the Bertillon system of classification of causes of death has already had practical effect given to it by the State Statisticians of both New South Wales and Victoria—by the former in the monthly report published by him concerning the vital statistics of the metropolis of New South Wales, and by the latter in the analysis of the causes of death in Melbourne, Ballarat, Bendigo and Geelong, published in his statistical abstract for the quarter ended March 31st, 1907. This ready co-operation of the State officers with the Federal Statist will rapidly bring about such a classification for Australia as will enable a comparison to be readily made between the vital statistics of Australia and those of the principal European and American countries. The work of putting the classification into actual operation in Australia has been rendered possible by the preparation and publication by the Commonwealth Bureau of a translation of Dr. Bertillon's classification, and of an alphabetical index of the items in the nomenclature of diseases and causes of death which the Minister sanctioned some time ago.

Compulsory Vaccination in Victoria.

The clauses in the present Public Health Act of Victoria dealing with the question of vaccination are evidently insufficient to secure the enforcement of compulsory vaccination, and some amendment appears necessary. Prose-

cutions under the present Act are more or less farcical, since a loophole is provided for the "conscientious objector," and in the case of those who do not care to go behind the law the payment of a small fine secures them from all further worry. But of course the payment of the fine does not assist in the protection of the public against a possible invasion of smallpox. These matters were pointed out recently by Dr. Cole, P.M., in dealing with a case at the Caulfield Police Court recently. A father who did not wish to have his child vaccinated because "he had seen the pain inflicted by vaccination," refused the advice of Dr. Cole and was fined £2, the maximum amount under the law. Dr. Cole remarked that 12 vaccination cases had been before the court that morning, and the number of cases was on the increase. People managed to evade the Act by paying a small fine. If vaccination was to be enforced, small alteration must be made in the provisions. Either people should be left to their own will or every child should be vaccinated. He strongly favoured the latter course. Parents need not be consulted in the matter.

The Care of Inebriates.

From the *Melbourne Age* we learn that the Inebriate Institution at Lara was opened on July 1st. It has accommodation for 25 males. At first it will be under the management of Dr. Godfrey, who will have a small staff. Patients may be committed to it for a term not exceeding one year, after certification by a doctor, on the order of two magistrates, the Master in Lunacy, or a judge, either on their own application or the application of their friends, or the court itself can take action. Provision is made for a statutory charge of £1 per week, but this may be reduced where considered advisable by the Government. Another institution under the administration of the Lunacy Department, the Receiving House at Royal Park, will be proclaimed on July 15th. While this forward movement in the treatment of inebriates has been taken in Victoria, we regret that the matter is still under discussion in New South Wales. The buildings on the Hawkesbury River which were erected by the late Government have been condemned as unsuitable for an inebriate retreat, and the only alternative at present suggested for the treatment of confirmed drunkards is Darlinghurst Gaol! A more unsuitable place for this purpose could hardly be imagined. If the inebriate is to be

reformed and his evil habits eradicated it must be by restoring his physical and mental health, by fresh air and outdoor occupation, as well as the enforced restriction from alcohol. Dr. Creed has done good service in drawing public attention to this matter, and in the interest of the present and future generations in this State it is imperative that some institution, specially designed and controlled to meet the physical and mental needs of the inebriate and drug habitues, should be established here without delay.

The Election of the Medical Staff of the Melbourne Hospital.

The method at present in vogue for the election of the honorary medical and surgical staff of the Melbourne Hospital can only be characterised as a deplorable anachronism. Instead of the selection of the medical officers being made by the hospital committee, or board of directors, as the representative executive body of the subscribers, the election depends upon the votes of all the subscribers, and we have the melancholy spectacle of distinguished members of the profession being obliged in defence of their position on the hospital staff to canvass for the votes of the subscribers. It is stated that during the five months prior to the election the number of subscribers to the hospital is increased by some hundreds, who give their contributions not to forward the cause of charity and the relief of the suffering poor but to enable them to vote for some candidate for a post on the hospital staff. It is reported that one medical man is prepared to expend £1000 to secure a position. It is surely time that a system which is open to such scandalous abuses should be abolished, and the election of medical officers be deputed by the subscribers to the hospital committee. This is one phase of hospital management which might well engage the attention of the Congress in Melbourne next year.

Tasmanian Women's Health Association.—The quarterly and annual meeting was held last month; Lady Edeline Strickland, patroness, presiding. Dr. Webster's offer to give a lecture on "Bedroom Hygiene," to be followed by a visit to the Consumptive Sanatorium, as a practical demonstration of the advantages of fresh air, was gratefully accepted. Dr. Owen's postponed lecture, which is to take place on Thursday, 20th, was arranged for. A short annual report was read by the hon. secretary, and a satisfactory statement given by the hon. treasurer. The officers were then cordially re-elected.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

A MEETING of the Branch was held at the Royal Society's House, Elizabeth-street, Sydney, on June 28th; Dr. B. J. Newmarch, the President, in the chair. There were about 40 members present.

Members Elected.—Dr. G. H. Vernon, Sydney; Dr. T. C. Parkinson, R.P.A. Hospital; Dr. H. C. M. Delohery, Forbes; Dr. B. T. Stiles, Newtown.

Announcement of Candidates for Membership.—Dr. T. P. McKell, Barraba; Dr. Thomas Graham Campbell, Haberfield, Sydney; Dr. Charles Hunter Graham, Wellington; Dr. Arthur Montague Rygate, Wellington; Dr. Edward Linton, Wellington; Dr. Arthur Bradridge Phillips, Grafton; Dr. Leslie Cowlishaw, North Sydney; Dr. Duncan David Gibson, Dubbo; Dr. Frank Sturges, Wellington; Dr. Hedley Ebenezer Fox, Kiama; Dr. Frederick Challands, Mudgee; Dr. William Henry Elworthy, Penrith; Dr. P. Fiaschi, Sydney; Dr. James Robert Leslie, Sydney; Dr. Jessie S. Aspinall, Sydney.

Dr. P. L. HIPSLEY read a paper on "The Etiology of Intussusception." (See page 338.)

The PRESIDENT complimented Dr. Hipsley on his paper, but could not agree with some of his conclusions. He thought the length of the mesentery was the chief cause.

Dr. LETHBRIDGE had seen most of the cases quoted in Dr. Hipsley's paper, and for the most part agreed with his conclusions. In more than half the cases of intussusception at the Royal Alexandra Hospital for Children the history stated that the child "woke up screaming."

Dr. BINNEY did not like the title of the paper. He agreed that intussusception seldom occurred in adults, those most frequently attacked being very healthy, lively children, and the condition might be caused by mothers and nurses playing with and jumping the children up and down, and thus producing peristalsis.

Dr. LITCHFIELD did not think the jumping up and down had anything to do with the cause of intussusception, inasmuch as attacks of the disease sometimes came on while children were in bed lying down. The peculiar shape of the bowel of infants—a point made in the paper they had just heard read—was worthy of consideration and further investigation.

Dr. CHENHALL said that what the precise course of the disease was was obscure, occurring as it did in healthy children, generally between three and nine months of age. He was inclined to think that the very common practice of mothers and nurses binding the children with a hard binder below the umbilicus might be a predisposing cause.

Dr. HIPSLEY, in reply, scarcely thought the binding had anything to do with causing intussusception, for such bandages were frequently nearer the neck than the abdomen.

Dr. CRAIG moved—"That ethical questions involving reference to the conduct of members of the Association shall be dealt with by the Council, and shall not be introduced at general meetings." He said that in the past it had been the invariable practice for all questions affecting the professional conduct of members to be investigated and adjudicated upon by the Council, but during the past year or 18 months, on three occasions, such questions had been brought before general

meetings. He thought the continuance of that practice would do the Branch an immense amount of harm. Members would readily see that these questions could be much more calmly inquired into and dealt with at a Council meeting than at an excited general meeting. If the Council failed to do its duty in any case of the kind, then it could be brought before a general meeting in the shape of a vote of censure on the Council.

Dr. CLARENCE READ seconded the motion *pro forma*, but wished to have it altered so that a member might appeal to a general meeting if necessary.

After discussion, in which Drs. MCKAY, CLARENCE READ and the Hon. Secretary took part, the motion was altered to read as follows:—"That ethical questions involving reference to the conduct of members of the Association shall be dealt with by the Council in the first instance," and carried unanimously.

Dr. NEWMARCH read "Notes on a Case of Bilharzia Hæmatobia." (See page 336.)

Dr. MAITLAND said he had examined a patient suffering from the disease by the cystoscope, and had found the case a typical example. The man had seen service in the Boer war.

Dr. GORDON CRAIG asked if the high leucocyte count was obtained after the irritation set up by sounding the bladder?

Dr. BLIGH replied in the negative.

Dr. STACY said that such cases could be diagnosed by merely examining the blood. The President had not stated whether any worm had been found in his case. He (Dr. Stacy) had shown and published a similar case two or three years ago.

Dr. GILL, referring to Dr. Maitland's case, said the blood was not examined, and the disease was due to bladder infection. Dr. Newmarch's case was of special interest owing to its being the first to occur in Australasia.

Dr. SINCLAIR GILLIES thought it should be clearly proved that the man had contracted the disease in New South Wales. Statements made by patients were frequently quite unreliable. As regards treatment, he had seen a case at St. Bartholomew's Hospital where methylene blue was administered. The physician who prescribed it received an urgent call to the country a few days later on account of the colour of the urine!

Dr. FIASCHI quite agreed with the views of the last two speakers. The patient had come from England, and there were a good many stopping places on the way out here, Egypt being a country where the disease was prevalent. The infection might have been incurred outside Australia.

Dr. SHEDDEN DAVIS said Newcastle was a port visited by ships from all parts of the world. Infection came from drinking contaminated water. Cases might be infected years before symptoms showed themselves. There might be many other cases in the country.

Dr. J. ADAM DICK had received from his brother, Dr. R. Dick, a specimen of urine for examination from a family living in Newcastle. Worms were found.

Dr. NEWMARCH, in reply, stated that his patient on his voyage out here had never left the ship. Infection he believed to be from bathing, and it was per rectum. There was a creek close to the house where patient had lived, and he had cleaned this creek out, but there was no evidence of his bathing there. There had been no microscopic examination of the blood.

Dr. CLARENCE READ moved—1. "That an emergency fund for dealing with disputes in cases of contract practice and otherwise, under the management of the Council, be created by voluntary subscription." 2. "That the Lodge Practitioners' Defence Fund be absorbed by the emergency fund."

On the suggestion of the Hon. Secretary, the words "in maintaining the interests of the profession in fighting organised bodies" were added to No. 1 after the word "otherwise."

Dr. PALMER seconded the motion.

Drs. CRAIG, GORDON CRAIG, BINNEY and the Hon. Secretary discussed the motion, and it was carried unanimously.

Victoria.

THE ordinary monthly meeting was held in the hall of the Medical Society on Wednesday, June 12th. Professor Allen, the President, occupied the chair.

THE HON. SECRETARY reported the election of Drs. J. W. Shields and D. G. M. Teague as members of the Branch.

THE PRESIDENT read a letter from Lord Lister acknowledging the congratulatory cable sent on his 80th birthday.

Apologies for their absence from the meeting were read from Mr. E. T. Drake (Victorian Statist) and Dr. J. W. Barrett.

Mr. G. H. KNIBBS, F.S.S., F.R.A.S., Commonwealth Statistician, read an address on "The Classification of Disease and Causes of Death from the standpoint of the Statistician."

Dr. W. P. NORRIS, Chairman of the Board of Public Health, desired to thank Mr. Knibbs for his most informative address. To one connected with the survey of disease in the larynx the science of nosology was of great interest to him. Mr. Knibbs' primary purpose was to provoke a sympathetic consideration of the Bertillon system. The Bertillon system was rooted broadly upon the British system of nosological classification. There was no gainsaying the fact that the broader the base the lower the minimum of error. The Bertillon system did this. At present there was no uniform system throughout Australia, and we were faced with the necessity of choosing a system likely to prove most satisfactory. The Bertillon system rested upon a broader basis than the British system, and was now much more universally in use. It was also the most logical system extant. The possible fallacies had been reduced almost to a minimum. The statistician was a soulless machine—he must take the material as he gets it. Thus his appeal to the medical profession was for accurate data and material. It was vitally important from the sanitary point of view for statistics to be correct, especially in the case of infective diseases. Mr. Knibbs' translation of the Bertillon system was admirable, and should be in the hands of every practitioner. Could this not be undertaken by the Association? The formation of a small committee to consider the code could do good work here before the next revision in 1910.

Dr. JAMES JAMIESON, Medical Officer of Health of the City of Melbourne, said that he was interested in this subject, both as a teacher of medicine and as health officer. He did not necessarily follow the same methods of nosological classification in these two spheres. The objects of the statist and of the medical man were different. The statist was content to arrange deaths according to their immediate causes, whereas the medical man desired to go further back to ultimate causes. The first attempts at nosological classification were on a symptomatological basis. At that time pathology was in its infancy. Even in the hands of Linnaeus attempts in this direction failed. A second method of classification disregarded both causes and symptoms, and looked only to the location of the disease. This was the method of the Bertillon system. This again was impossible throughout, so there had to be a class

of general diseases. All systems became inconsistent at last; so many cross references were required. A system was bad in proportion to the number of cross references, exclusions, and exceptions. The Bertillon code failed utterly when tried by this test. The ideal system was one which had regard to causes, the causes which were the ultimate causes, the bases of disease. Many diseases formerly considered constitutional on the one hand or local on the other were gradually being drafted into the class of zymotic diseases with definite causation; for instance, rheumatism among the former, and pneumonia among the latter. Septicæmia, as such, was a general disease, but in the Bertillon code when it occurred in the puerperal state it was included among the diseases of pregnancy without even a cross reference, which was surely an inconsistency. If there was ever to be a permanent nosology capable of being made progressively more perfect, it must be on a basis of causation. Another difficulty in the way of correct statistics is the carelessness and want of uniformity of certification. He doubted whether there had been much improvement in the last 20 years. There had been many curious changes in nomenclature and in even the fashion of certification. For instance, in 1872, 277 deaths in Victoria were attributed to teething; in 1881 there were 60, and in 1900 none. Where had the 277 gone to? They had to be accounted for. This rendered any comparison of different periods of little value, or at least extraordinarily difficult. No system could be consistent in the present state of our knowledge. Still another difficulty occurred to him. Take the case of the prevalence of syphilis. There was great difference of opinion. Comparatively few deaths were certified under this head. The difficulty was obvious, when certificates were to be handed to the relatives or to the local undertaker. Death certificates should be confidential documents.

Dr. SPRINGTHORPE emphasised the great importance of international uniformity of the tabulation of causes of death. The Bertillon system was that most universally used at present, and so should be adopted by the Commonwealth. The tabulation at present, however, did not conform altogether to local experience. It could be bettered by local revision. He would advise that indefinite certificates should be returned to the certifying practitioner for revision, as was at present done with similar lunacy certificates. The great question was the international prevention of infection. The flaw in the Bertillon code was that it did not make any provision for ascertaining the causation of disease. He was in favour of the appointment of a committee to consider modifications of the code before the next revision in 1910.

Mr. FENTON, of the Victorian Statist's Office, agreed in part with Drs. Jamieson and Springthorpe. The statistician really desired causes as much as the medical man. At first he had been of opinion that a revision of our old system would be better than accepting the Bertillon system. Now, however, it had become so much more universal that it should undoubtedly be adopted here. He instanced many fallacies and inconsistencies in the details of the system.

THE PRESIDENT expressed the indebtedness of the Association to Mr. Knibbs for his address, and to the various visitors for their assistance in the discussion. Certificates of death should be as uncomplicated as possible; they should not show minute diagnoses. While not being quite satisfied with the Bertillon code, he realised that an etiological classification was impossible. The Bertillon code as it stood at present certainly required very careful revision. He thought that the committee of the Intercolonial Medical Congress of

1908, which was already in existence, could do a great deal before the meeting of the Congress. That committee was already in communication with Mr. Knibbs.

Mr. KNIBBS, in reply, thanked those who had criticised his address and taken part in the discussion. He would be very pleased to submit any alterations suggested by the Congress Committee to the International Conference of Statisticians, at which he hoped to be present. This Conference was to meet in 1909 in preparation for the revision of the Bertillon code of nosological classification in 1910.

The meeting then terminated.

The usual monthly meeting of the above Branch was held in the hall of the Medical Society of Victoria on Wednesday, July 3rd, at 8 p.m. The senior vice-president, Mr. G. A. Syme, occupied the chair.

Dr. D. M. OFFICER showed a girl who ten years ago, during the third week of an attack of typhoid fever, developed a large cancerum oris. The condition had been arrested, and later Mr. Ryan had performed a plastic operation to remedy the deficiency left in the cheek. There was now considerable contraction of the scar tissue, rendering inadequate the movements of the lower jaw. A photograph of the condition before operation was shown. Dr. Officer also showed a case in which there had been a fracture of the forearm with impairment of function of the posterior interosseous nerve. On operation the nerve was found not to be involved in the callus or to be bound down in any way. He stripped the nerve of its sheath as completely as possible. Recovery was complete.

Mr. G. A. SYME showed a man who in December last had been shot in the right axilla by a burglar. There was no hemorrhage at the time, and the man walked a distance of a mile to the Melbourne Hospital. On the wound being probed profuse hemorrhage occurred. On examination the left radial pulse was weak and the right radial pulse absent. Immediate operation was performed, and the first part of the axillary artery was found to be completely divided. The bullet was found embedded in the infraspinous muscle, having pierced the scapula. There was apparently at the time no injury to the nerves, but later wrist-drop developed. Then under anaesthesia the plexus was exposed and the posterior cord was embedded in the cicatrix. Now power and sensation were completely restored. Mr. Syme also showed a boy who in November, 1905, sustained a compound comminuted fracture of the lower end of the humerus in the elbow-joint. The bone was in fragments. The fragments had been drilled, and fixed with ivory pegs. These not being sufficient, silver wire was wound round the ends of the pegs, and the fragments, holding them together as in a cage. Some 12 months later there was some discomfort, as the wire had worked loose. On operation the pegs also were found to have become loose, and they and the wire were removed.

Dr. W. K. HUGHES showed an obstinate case of talipes varus treated by transplantation of tendons.

Dr. HENRY LAURIE read notes on a case of large sarcoma of the breast. Sixteen years previously the patient, a woman aged 62, had noticed a lump in the breast which discharged continuously until October of last year, without appreciably increasing in size. Then it began to grow rapidly, until when first seen it was very large. The breast was removed by Mr. G. A. Syme, and a subsequent grafting had to be performed. The result, nine weeks after operation, was perfect. One son of the patient had died, aged 31, eight years previously of multiple sarcoma. [Dr. Mollison demonstrated the specimen, which contained a central

portion consisting of fibrous tissue quite ossified in the interior, and outside this a large small-celled sarcomatous growth.

Dr. W. MOORE read a paper upon "The Operative Treatment of Puerperal Pyæmia." After discussing the history of the operative treatment of this condition, he reported two cases in which he had ligatured the ovarian or internal iliac veins, or both, as required. One case was successful, in spite of the presence of septic emboli in the lungs.

Dr. G. CUSCAGEN referred to the varieties of septic conditions found in the puerperal state and to the difficulties of diagnosis. It was thus not always easy to decide upon the cases for operation.

Dr. A. N. MACARTHUR considered the operation too risky. Statistics of the operative treatment of the condition so far were not at all satisfactory. The results of surgical inactivity compared favourably with those of operation cases. The patients were in an extremely serious state, and the added risks made such a severe operation to his mind unjustifiable. He was at present working in cases of puerperal sepsis on the lines of the preparation of specific vaccines for each individual, and thought results in this direction would ultimately be the most satisfactory.

Dr. MOLLISON said that in his experience as a pathologist pyæmic cases with thrombosis of the veins were rare, as compared with cases of lymphatic infection. When thrombosis did occur the clot, as a rule, did not pass far up the ovarian veins.

The CHAIRMAN considered that Dr. Moore was to be congratulated upon his boldness and upon the success in his second case. In his experience the condition was a comparatively rare one. The operation of ligation of the veins as described by Dr. Moore was much less severe than that of removal of the uterus, which had been advocated in puerperal cases.

Dr. MOORE, in reply, quite agreed that cases of pyæmia with septic thrombosis were comparatively rare and formed only a small proportion of the septic cases admitted to hospital. He, however, was convinced that where the diagnosis was positive the operation would in the end be the recognised treatment. It was, in his opinion, exactly comparable to thrombosis of the lateral sinus. The indications for operation had not as yet been defined with absolute certainty, but the main were that the endometrium was clean and there was no evidence of sepsis elsewhere. There was usually tenderness in the ovarian region on the side of the infection. As to the severity of the operation, the large abdominal incision was the worst injury inflicted. There was practically no loss of blood. There had been little or no shock in his cases. Even septic infarctions in the lungs did not, in his opinion—as instanced by his successful case—contraindicate operation. He thanked members for their criticism.

At the close of the above meeting a special meeting was held to consider the enactment of a new section in the by-laws to provide rules for the formation and government of sections of the Branch for the study of special branches of medical knowledge.

The rules, as submitted by the Council of the Branch, were passed without amendment.

Section III.—Rules Governing the Formation of Sections.—Sections of the British Medical Association, Victorian Branch, for the study of special branches of medical knowledge may be formed under certain conditions, as follows:—

1. Any number of members of the Branch desirous to form any such section shall apply in writing to the

Council of the Branch for recognition as a section, specifying explicitly the scope of the work of the proposed section. No section shall be formed except in pursuance of resolution to that effect by the Council of the Branch and the Council may at any time by resolution terminate the existence of any section.

2. All members of any such section must be members of the Branch, and membership of any section shall be open to all members of the Branch.

3. The members of each section shall appoint a chairman, a secretary, who may or may not also act as treasurer of the section, and such other office-bearers as they shall from time to time determine. All such appointments shall be reported to the Council of the Branch, and shall be subject to the approval of the Council.

4. Each member of a section shall pay to the treasurer of the section an annual subscription consisting of such sum as the members shall from time to time determine, and each section shall pay to the treasurer of the Medical Society of Victoria such sum as the committee of the Society shall from time to time determine for each meeting of the section held in the hall of the Medical Society, except only where such meeting shall take place of an ordinary meeting of the Branch.

5. Ordinary meetings of a section shall be held at such intervals and at such times as the members of the section may from time to time determine, subject to the approval of the Council of the Branch; provided that at least one such meeting in each year shall be open to all members of the Branch; such general meeting may take the form of a clinical afternoon at some special hospital, a special demonstration, or, with the special consent of the Council, may take the place of an ordinary meeting of the Branch.

6. The members of the committee of any section shall be responsible for any expenditure and for any liabilities incurred by such section.

7. Before the last Wednesday in November of each year the secretary of each section shall forward to the secretary of the Branch a report of the work of such section for the year, and a balance-sheet showing its financial position, together with a list of its members.

West Australia.

THE ordinary meeting of the Branch was held at Perth Public Hospital on Wednesday, June 19th, 1907. Present: Dr. Trethowan (President), and Drs. Cleland, Saw, Tymms, Rygate, Randall, Griffiths, Teague, Ramsay and Officer.

The minutes of the previous meeting were read and confirmed.

New Members.—Dr. A. W. Crawford was elected a member. Dr. Rygate, of Queensland Branch, and Dr. A. Morrison, of Victorian Branch, were transferred to West Australian Branch.

Accounts to the amount of £52 8s were passed for payment.

Various letters were read and dealt with.

Dr. SAW showed some gallstones (weighing dry oz. iii. gr. x.). Symptoms of case suggested intestinal obstruction from cancer at hepatic flexure; at operation, gallstones. Good recovery.

Dr. SAW also showed two renal calculi (weighing 1½ oz.), which had occupied the renal calyces of a woman now 35 years, who had had symptoms of renal calculus since she was nine years of age. Dr. Griffiths exhibited a skiagraph showing the stones *in situ*.

Dr. CLELAND showed for Dr. TYMMS gummata in the heart of a Chinaman who was found dead.

Drs. TRETHOWAN and TYMMS related the details of a recent case of tetanus. The wound had been in the face and the tetanus had been confined to the cerebral nerves. (See p. 348.)

Dr. TYMMS also read notes on two cases of typhoid fever with cholecystitis, from one of which pure culture of bacillus typhosus had been obtained from fluid drawn off from the gall bladder. Also on two cases of typhoid with purpuric hæmorrhages. (See pp. 347 and 348.)

In the discussion following, Dr. SAW referred to one of the cases and said that before the operation several other observers had agreed with him that the symptoms pointed to perforation. He referred to the fact that the typhoid bacillus had been considered as a fertile source of gallstones.

Dr. CLELAND said that the organism isolated from the gall-bladder in pure culture was a decidedly motile bacillus, which did not ferment sugars and gave a reverse Widal reaction.

Dr. TRETHOWAN referred to a case of typhoid in a child with perforation. Noted at operation the size of mesenteric glands, which were size of bantam's eggs. He agreed with Dr. Tymms that in these gall-bladder typhoids correct treatment was to incise and drain.

Dr. OFFICER referred to a case in which petechial spots appeared on the face of a boy convalescent from typhoid.

Dr. CLELAND mentioned a recent case in which a blister bigger than palm of hand, with bloody fluid, was present on the thigh.

Dr. TYMMS replied and said that he had been struck by the extreme emaciation in the cholecystitis cases, and wondered if the distension of the gall-bladder was caused by the chronic starvation of the patient, with secondary infection by the typhoid bacillus.

Queensland.

A MEETING of the Branch was held on Friday, July 5th; Dr. Lockhart Gibson in the chair, and an attendance of ten.

It was resolved that the opinion of members should be obtained as to the suitability or otherwise of Friday for purposes of meeting.

Dr. HARDIE read a paper, illustrated by diagrams, on "The Treatment of Occipito-Posterior Presentations." (To appear in next issue.)

Dr. TURNER read a paper upon "Some Clinical Cases: an Essay on Rational Therapeutics." (See p. 329.)

The papers were followed by a good general discussion.

REPORTS OF OTHER SOCIETIES.

University of Sydney Medical Society.

A MEETING of this Society was held on June 21st at the Medical School. Dr. Poate was in the chair, and about five graduates and 55 undergraduates were present. Dr. Pockley, late president of the British Medical Association, gave an address entitled "Our relations with ourselves and with our patients." He began by pointing out that an amount of determination and perseverance necessary for five years' study put into trade would be more profitable in money, and also that in the past few medical men had been able to retire in comfort before old age, and much less would men be able to do so in the future. He outlined for us the ideals of character and behaviour which must be the aim of all who carry a message of comfort and

healing to the afflicted in body and in mind, advising at the outset that those who were seeking filthy lucre in the profession should abandon either medicine or such an unhappy ideal. The rules of conduct among ourselves were dealt with in a short general way, showing above all things the necessity of united and harmonious action and reaction among medical men to the end that we may enjoy the respect and goodwill of the public, upon which a mutual advantage depends.

A vote of thanks, proposed by Dr. Bradley and seconded by Mr. Brookes, was carried by acclamation. The speaker having replied, the meeting terminated.

At a meeting of the above Society, which was held at the Medical School on Friday, June 28th, a revised and altered list of rules was presented by the Council of the Society for consideration by the members present.

The great feature of the new rules adopted by the Society is the increased number of offices open to graduate members. There is to be a graduate secretary, whose special duty will be to keep in touch with men who have obtained their degrees in medicine; also there are to be two more graduate vice-presidents, and two graduates are wanted on the editorial committee. Elections for the above offices will be held at the next general meeting of the Society. Candidates for office must now be nominated by two members of the Society and the nomination handed in seven days before the meeting to the hon. secretary, and they have to be posted by him three days before the meeting. All elections of office-bearers have to be by ballot and on special ballot papers issued to members only.

An alteration has also been made in the manner of election of members. All medical students and qualified medical practitioners are eligible, but must hand in their names to the hon. secretary if they wish to become members of the Society, and the secretary has to post them three days before a meeting, at which the names are then submitted for election, and unless there be any objection the nominee is to be considered as duly elected; and in the event of objection a ballot has to be taken.

The subscription has been fixed at five shillings per annum, including the journal, or one guinea for life membership, exclusive of the journal, which then costs an extra half-crown per annum.

Ordinary meetings of the Society are held twice during Lent term, as well as then having the annual general meeting, three times in Trinity term, and once during Michaelmas term. Special meetings can be arranged for by the Council at any time provided that the business, etc., to be considered warrant it.

An annual dinner is now held and proves to be a very successful function, as can be gathered from the fact that over 140 were present last year.

Strong efforts are being made to secure a large graduate membership in order to advance the aims and objects of the Society, and to bring student graduates into closer touch. Any men wishing to obtain particulars or rules of the Society can get all information from the President, Dr. Poate, Royal Prince Alfred Hospital, or from the Hon. Secretary, Mr. G. A. Brookes, the Medical School, University of Sydney.

MEDICAL men who purpose applying for the appointment of Medical Officer to the Cloncurry (Q.) Lodges are requested, before doing so, to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association.

OBITUARY.

ROBERT LAMB, M.B., C.M. (Edin.), 1891,
Wentworth Falls, N.S.W.

We regret to record the death of Dr. Robert Lamb, of Wentworth Falls, New South Wales, which took place last month. He was a native of Matakana, near Auckland (N.Z.), but spent his youth in Christchurch. He graduated as M.A. at the University of New Zealand, and then he proceeded to Edinburgh to study divinity and medicine, and obtained the degree of M.B., C.M. in 1891. In the same year he returned from the old country and was appointed to take charge of the medical mission in connection with the Presbyterian Church of New South Wales at Ambrym, New Hebrides. His health breaking down owing to pulmonary tuberculosis, he came to Australia and took up the practice of his profession, first at Molong (where he was appointed Government medical officer) and latterly at Wentworth Falls. He married in Edinburgh and had twin sons while at Ambrym, who both died in infancy as a result of shock during the devastating hurricane there. He leaves a widow but no children. A large number of the residents of the Blue Mountains resort attended his funeral.

WILLIAM FOSSAITT BAUCHOP, L.R.C.P.,
L.R.C.S. (Edin.), 1891, Ophir, New Zealand.

The death is announced of Dr. W. F. Bauchop, of Ophir, New Zealand, at the age of 39 years, from acute pneumonia. He was born at Port Chalmers, New Zealand, and obtained his medical education in Edinburgh, where he took the qualifications of L.R.C.P. and L.R.C.S. in 1891. He returned to New Zealand, and had only been practising in Ophir about 18 months. His wife died some eight months ago. General regret is expressed at his early death.

Dr. JOHN STRIBBS WAIT, Oamaru, New Zealand.

We regret to record the death of Dr. John Stribbs Wait, of Oamaru, at the age of 77. Dr. Wait arrived at Port Chalmers in 1863, and settled at Oamaru, where for many years he practised his profession. He was a prominent Freemason, and founder of Lodge Waitaki. During the course of his long residence he held many public positions, including that of Mayor (two years), chairman of the Harbour Board (two years), and chairman of the Rakanui Road Board. He laid the foundation stone of the first jetty in Oamaru, and turned the first sod of the Waitaki-Moeraki railway.

A Curious Advertisement.—A correspondent has sent us the following cutting from a country newspaper in New South Wales:—"Professional and Political.—Dr. ———, Licentiate of the Royal College of Surgeons, Ireland, Licentiate of the King and Queen's College of Physicians, Dublin, Licentiate in Midwifery, Royal College of Surgeons, Licentiate in Midwifery, King and Queen's College of Physicians, Licentiate in Midwifery, Coombe Lying-in Hospital, Dublin, has come to stay professionally, or go as your representative to Parliament, at your optional choice. I stand a successful professional, kind and considerate in the first; I go as a champion of all that is right, just and equitable in the interests of the individual as a unit, and for humanity as the whole."

REVIEW OF CURRENT MEDICAL LITERATURE.

SURGERY.

The Question of Early Operation in Cases of Intracranial Injury.

Phelps (*Annals of Surgery*), December, 1906, contributes an exhaustive paper on this subject, and concludes with the following summary:—(1) Epidural hæmorrhage demands operation in such cases as do not obviously tend to spontaneous recovery or in which a fatal issue is so imminent as to permit no question. (2) Meningeal contusion, when productive of symptoms, either cannot be diagnosed from an epidural hæmorrhage or is indistinguishable from the diffuse cerebral œdema with which it is always associated. A recognised intracranial hæmorrhage may be expected to be of pial origin when associated with cerebral lesions, and will indicate operation when the cerebral lesion is regarded as of minor importance. (3) Cerebral contusion: (a) Limited; no tendency to a fatal termination, and never suggests operation; (b) diffuse; two classes of cases—in one a vascular disturbance incapable of self-limitation, not markedly involving the integrity of the cerebral cells, but tending to mechanically destroy their function; in the other a progressive disintegration of cellular structure, an active process due to chemical changes, which natural forces prove insufficient to restrain. In the first, operation is theoretically indicated; in the second, in view of the origin and nature of the pathic changes, there is no reason to suppose a simple relief of pressure will stay their progress. In neither is it possible to fix the time when operation may so supplement natural forces and simpler remedial measures as to increase the patient's chances of recovery. (4) Mixed cases: Cerebral contusion complicated with pial or epidural hæmorrhage. Operation should depend upon the estimated relative importance of the lesions, and the correctness of this estimate must depend upon the acumen and experience of the surgeon.

Appendicitis in Infants and Children, with a Statistical Abstract of One Hundred Cases Operated on in Five Years.

Erdmann (*Medical Record*, May 11th, 1907) contributes the above-named paper. The difficulties in making a diagnosis of appendicitis in occasional adult patients, even with all scientific aids added to a well-developed history, are greatly multiplied in infants and children, who are unable to express themselves. In addition, in infants the many gastro-intestinal complaints which they may be subject to cloud our reasoning and thereby delay our diagnosis. Of the factors obscuring our diagnostic acumen are the teachings that meats, etc., substances of diet that the young and adult take, are causative factors in the production of this disease, and therefore that a milk baby cannot have it, and that an appendicitis is an exception in certain tribes of the Orient, who subsist on vegetation only. Nevertheless, this disease does exist in the milk and prepared food infants frequently enough to give us cause for alarm when seeing children under three years of age suffering from abdominal pains, distension, etc. Kermisson (*Revue de Chirurgie*) has reported a case of an infant 11 months old, and said he had found reports of 25 cases under two years, nine of which were under 12 months. The author of

this paper has recently operated on a patient 21 months old, in the second day of the disease, finding a concretion one and a-half inch long by about three-fourths of an inch wide in a perforated and gangrenous appendix, with general suppurative peritonitis, with a fatal termination in 26 hours. One thing is apparent, and that is the rapidity of the intoxication due to the spreading of the peritoneal invasion in these cases and the marked lessening of resistance in the patients under three years. Kermisson has stated that no meat had been given in any one of the cases cited in his paper. To diminish the great mortality in appendicitis occurring in infants under three years, we must first recognise that this disease is an established fact, even in breast-fed infants. Then we must improve our diagnostic sense by summarising such symptoms in infants as have been shown to be accompanied by appendicitis, and finally to insist upon early operation, as we do in adults. The disease may be insidious in onset, and is rapid in its progress as to spreading, loss of resistance, and toxæmia. The time of the descent of the cæcum with its appendix must be recognised, for frequently the appendix is not in the normal site before the third or fourth year, but lies high up, even under the costal arch. In arriving at a diagnosis we must consider gastro-enteritis, invagination, and obstruction due to hernia, etc. *Symptoms*: Pain, with nausea and vomiting, either preceding or accompanying, and with following temperature elevation, increased pulse rate, difference in the sense of resistance in the abdominal wall, distension in varying degree, crying of the child upon palpating the abdomen, fitful crying and sleep. Almost invariably the little patients unconsciously place their hands in the region of the appendix to ward off manipulation in this region. Pinworms were found as foreign bodies in ten cases. The total number of cases operated upon by Erdmann from January, 1902, was 100, of which 41 had foreign bodies, including the 10 cases of pinworms. Twenty-four had perforated, with or without general gangrene; 50 were gangrenous, with or without perforation and pus. Thirty out of 78 seen since January, 1904, had pus, either localised or general, and with or without gangrene and perforation, while only five were interval cases. Thirty-seven cases were drained. The ages varied from one to fifteen years; the largest number in any year of age being 14 at 11 years. There were seven deaths in the series, a percentage of seven. Two died from pneumonia, one from subphrenic abscess, and four from general suppurative peritonitis. Erdmann is a firm believer that once an appendicitis has occurred the patient is always in danger until the organ is removed, and he advises that the patient seen in all such cases be submitted to operation. The author's operation does not differ from that followed by most operating surgeons. Where free pus of the serous variety is present in the general cavity, he sponges the pelvic cavity as dry as possible, and closes the wound with or without drain. He does not wash out the entire cavity, having given up that method six or eight years ago, nor does he wash out the abscess cavity with peroxide solution. Where a drain is used, it is a small cigarette drain made with rubber tissue, including a piece of sterile gauze loosely rolled. The incision is closed in layers. An action of the bowels is desirable in the first 24 hours, and is induced by either calomel or sulphate of magnesium. Nothing is given by mouth in the more serious cases until the bowels have moved or flatus has been expelled per rectum; then milk and broth diet is allowed for 24 hours, followed by light diet when the temperature is below 99.5°

Treatment of Prostatic Hypertrophy.—The consideration of the various methods of treatment based upon the mortality, and the report of 24 cases of median perineal prostatectomy.

Cunningham (*Boston Medical and Surgical Journal*, May 9th and 16th, 1907) contributes this paper. The consideration which has been given to the operative aspect of prostatic hypertrophy, especially by the genito-urinary surgeons of America, France and England, has during the past few years established certain definite operative procedures which have reduced the mortality, so that to-day the prognosis regarding death from such operations, and also the operative results, are very different from ten years ago. Certain operations, castration and vasectomy, have been wisely relegated to the past. These operations had a mortality of 17 per cent. and 9 per cent. respectively, and the results were poor. It must be realised at the outset that patients suffering from hypertrophy of the prostate are persons past the prime of life. The salient point in the choice of one or another method in the treatment of a given condition must be the respective mortalities of the different methods. Following is a list of the mortalities of the different methods of treatment of prostatic hypertrophy:—Catheterisation, 7.7 per cent.; palliative operations, 36.9 per cent.; partial prostatectomies, 19.1 per cent.; Bottini operation, 5.3 per cent.; total suprapubic prostatectomy, 9.6 per cent.; total perineal prostatectomy, (1) dissecting 5.6 per cent., (2) enucleation 4.7 per cent. Deaths following all forms of prostatic operations are due to four general factors—(1) uræmia, (2) sepsis, (3) shock, (4) pulmonary complications. These conditions are common to all forms of prostatic operations, but certain of them are more especially associated with one or the other methods. For instance, uræmia is less frequently associated with the Bottini operation than sepsis is, while shock is more frequently associated with the suprapubic operation than with the perineal. The different surgical procedures are separately discussed, but total perineal prostatectomy is more fully described and illustrated. We have two distinct methods for the removal of the prostate through the perineal route, with modifications of each:—1. Perineal dissecting operations as done by Albarran, Proust, Rydgier, Young and others, by which method the gland is approached through some form of perineal incision, the median raphe of the perineum divided, the gland drawn into the wound by some form of special tractor introduced into the bladder, and the gland removed through the posterior surface of the capsule. 2. Median perineal prostatectomy, performed through a median perineal incision, as suggested by Gouley as far back as 1873. 1. Perineal Dissecting Operations.—During the past few years operations have been devised by which the hypertrophied gland is approached by dissection of the perineum through a number of different incisions. [The various methods are essentially the same. The chief points claimed are to save the ejaculatory ducts and the prostatic urethra; but it has yet to be proved that the preservation of the prostatic urethra by these dissecting operations has any advantage over the results obtained by the suprapubic or perineal enucleation methods, in which instances the prostatic urethra is removed with the gland. Five hundred and sixty-three cases of perineal dissecting operations have recently been reported by various operators with a mortality of 5.5 per cent. 2. Median Perineal Prostat-

ectomy.—This method, the one employed in performing the series of cases here reported, has the lowest mortality of any of the radical operations, viz., 4.7 per cent. in 190 cases. Cunningham's 24 cases have no mortality. *Technique*: The bowels having been attended to and the perineum shaved, a grooved staff is passed into the bladder and the patient placed in the lithotomy position. The urethra is opened on the staff just behind the bulb of the urethra, and the knife is made to traverse the groove for a distance of about three-quarters of an inch, when it is drawn directly outwards, thus making a perineal wound about one inch in length. As the staff is withdrawn, the tip of the right index finger is introduced into the prostatic urethra. The finger breaks through the prostatic urethra at such a point as becomes most evident. Having broken through the prostatic urethra, the finger is passed through the glandular tissue, or rather between the lobes, until it strikes the fibrous sheath or capsule of the prostate, from which the lobes are separated by sweeping the finger between it and the gland. Suprapubic pressure with the left hand forces the prostate downward, and the enucleation becomes a bimanual procedure. It is sometimes necessary to grasp the lobe with vulsellum forceps and draw it downward and to one side. After one lobe has been removed, the remaining lobes are enucleated in the same manner, care always being exercised to perform the separation of the attachment between the gland and the sphincter in a most delicate manner, because upon the preservation of the sphincter depends largely the control of subsequent voluntary urination. It is possible in many cases to separate the whole gland from the prostatic capsule and remove it in toto with the prostatic urethra. This, however, is not advisable, because of the possibility of over-distension and rupture of the compressor urethræ muscle, which may be avoided by removal of the gland by *morcellement*. The enucleation is usually easy if the finger is kept in close contact with the gland surface. After the gland has been enucleated, the capsule should be found intact, the floor of the bladder uninjured, and the urethral orifice left as a well-defined muscular ring, admitting the tip of the index finger. The bladder should be examined for stones or diverticula. The bladder and all parts of the wound should be thoroughly irrigated with warm boric acid lotion. If there is but little cystitis present at the time of operation no catheter is retained in the bladder for drainage, but a small cigarette drain is placed just within the vesical orifice and brought out through the perineal wound. The amount of urine should be carefully measured, the immediate danger being that the kidneys will cease secreting reflexly from the operation. The bladder should be irrigated several times a day with some antiseptic solution when a catheter has been employed for drainage, and when the perineal wound has simply been wicked the perineal dressings should be changed as often as they become saturated with urine. The patient should take a fair amount of nourishment and should be got out of bed early, as these patients are liable to hypostatic congestion. It is better that the bowels should not move for two or three days. Sounds should be passed from the meatus to the bladder, beginning about one week after all forms of drainage have been removed, and should continue at intervals of three or four days until the perineal wound is entirely healed and no evidence toward constriction can be detected. A series of 24 cases is given, in which perineal prostatectomy had been performed by Cunningham during the past three years. There had

been no deaths from the operations, and, excepting one, every case of the series was living at the time of writing. All the cases except one had control over the act of urination, and each had been benefited by the operation. All the cases had been operated over four months at the time of reporting. The writer had chosen to do the median perineal operation because of the lower mortality, and the obvious reasons upon which this lower mortality depended, and because the results were equal to those of any other method.

THERAPEUTICS.

Intrapleural Injection of Formalin in Pleural Effusion.

Chapin (*Boston Medical and Surgical Journal*, April, 1907) reports the following case:—A male, aged 29 years old, came under observation on October 5th, 1906. He had never been robust, and for five years past had suffered from asthma. His present illness was of five weeks' duration. On physical examination he was found to have general bronchitis and a large pleural effusion on the left side. The fluid was aspirated three days later, three quarts of turbid, straw-coloured fluid being obtained. The fluid rapidly re-accumulated, and one week after the first tapping three quarts of fluid were again withdrawn. Nine days later a third tapping was done and again three quarts of fluid withdrawn. This was of orange-yellow colour, specific gravity 1018, containing a large amount of albumen and a faint trace of sugar. A differential leucocyte count gave polymorphonuclear neutrophils 40 per cent., lymphocytes 54 per cent., endothelial cells 6 per cent. No tubercle bacilli were found in this fluid or in the sputum. Two guinea-pigs inoculated with the fluid did not develop any tubercular lesions. The urine contained only a very slight trace of albumen, but nothing else abnormal. The tuberculin test was not tried. The patient's condition continued unsatisfactory; the periods of coughing were frequent and exhausting. There was an irregular pyrexia, ranging from 99° to 102°. The fluid again accumulated, necessitating two subsequent tapplings. A week after the last tapping the fluid had re-accumulated, and after the fluid had been drawn off one ounce of glycerine containing 10 drops of formalin was injected from a sterile metal syringe through the aspirating needle. At first the fluid re-accumulated as rapidly as after the previous tapplings, but after a few days its height remained stationary and then began to decline. His general condition and appearance improved rapidly, the temperature fell to normal, and four weeks after the injection the fluid had disappeared entirely from the chest. He rapidly improved, and in another month had gained 11 lb. in weight.

Treatment of High Arterial Tension.

Elliott (*Journal of the American Medical Association*, April 13th, 1907), after discussing the question of high blood-pressure and its relation to various morbid conditions (see abstract in *A. M. Gazette*, June, 1907), proceeds to discuss the therapeutical indications. He says that all high blood-pressure conditions are essentially characterised by the element of systemic toxæmia; high blood-pressure is in fact a vascular reaction against the presence of toxins in the circulating blood. Chronic vaso-constriction leads to fibrosis of the arterial walls, impairment of their elasticity, so that the heart hypertrophies. The permanent and progressive character of the peripheral obstruction and the states that the use of X-rays in unresolved pneumonia is suggested by consideration of the opinion that the limited possibilities of the heart for adjustment ulti-

mately leads to cardiac failure, the ventricles dilate, and secondary low blood-pressure becomes substituted for primary high blood-pressure. Before proceeding with the exhibition of vascular drugs the heart and circulation must therefore be carefully examined. A rapid, irregular or intermittent pulse, the presence of gallorhytoid, a mitral systolic bruit, inverse pulse, and blood pressure record, all point to cardiac inadequacy in face of the high blood-pressure, and may seem an indication for cardiac stimulation in place of, or in conjunction with, vaso-dilatation. Because the blood-pressure is high it does not necessarily follow that vascular relaxants are indicated. Active vaso-dilation, such as the nitrites, may occasionally be necessary to meet emergencies such as stenocardia, angina pectoris, etc., but while blood-pressure may be reduced temporarily by vaso-dilator drugs, it is very difficult to produce a permanent lowering except in the presence of a weak heart. A material fall in blood-pressure which is more than temporary, due directly to vaso-dilation, especially if accompanied by quickened pulse, rhythm, and not marked by improvement in the patient's sense of well-being, is apt to be unfavourable, being ominous of a weak heart. A sustained high blood-pressure (one 200 m.m.) and accompanied by symptoms of disquieting character may render a course of vaso-dilation advisable. The drug chosen should be used cautiously, closely watching its effects on blood-pressure, pulse rate, and subjective state of the patient. The sudden employment of full doses of an active vaso-dilator is to be condemned, as it may produce serious consequences to the patient's heart and nervous system. The benefit derived from vaso-dilator medication cannot be properly gauged by the blood-pressure record. The most favourable influence has been in cases where no manifest fall in blood-pressure has resulted, but subjective disturbances have disappeared and the pulse has diminished in frequency. The employment of vaso-dilators in the last stages of Bright's disease with cardiac dilatation, dropsy, etc., is practically useless, and would be positively injurious were it not for the fact that the vaso-motor control of the peripheral circulation is too much disturbed to respond.

The Local Use of Magnesium Sulphate Solution in Inflammation.

Tucker (*Therapeutic Gazette*, April, 1907) has found much benefit from the local application of a solution of magnesium sulphate in various local inflammations. The application consists of a saturated solution of magnesium sulphate in water. It is applied on from 15 to 20 thicknesses of ordinary gauze. This is saturated with the solution at least every half hour or as often as necessary to prevent drying. The gauze is not removed until the end of 24 hours; the parts are then washed with water, and the dressing re-applied if indicated. There is then found to be a marked blanching of the surface. The attendant who use the application complains that it causes a partial loss of sensation accompanied by tingling of the hands and arms, which persist for from 12 to 24 hours. He gives notes of 26 cases treated in this manner, including many cases of arthritis, gonorrhœal rheumatism, acute rheumatism, peritonitis, etc., and in every case marked relief of pain and swelling ensued.

X-Ray Treatment of Unresolved Pneumonia.

Edvan and Pemberton (*American Journal of Medical Science*, abstracted in *Medical Chronicle*, May, 1907) remarkable effects of these rays on metabolism in leukaemia is most readily and satisfactorily explained as due to the acceleration of autolytic processes inherent in the tissues, these processes being probably

of the nature of fermentation. The probable cause of failure of resolution in pneumonia is insufficiency of digestion of the exudate, and it is logical to suppose that acceleration of the digestive process will take place under the influence of X-rays. The authors in three cases adopted this method of treatment with highly favourable results. That these results were due to the X-rays is indicated, they think, by the fact that the urinary examination showed a remarkable increase of metabolism, as indicated by increase of nitrogen, chlorides and phosphates. The authors think that great care should be exercised in choosing cases suitable for the treatment. Cases that have lasted longer than a few weeks cannot be expected to recover, and where there is continued inflammation of the lung and not merely lack of resolution, the application of X-rays might prove highly dangerous.

Intravenous Injections.

Speville, in a recent communication to the Société Médicale de l'Elysée (*Journal de Médecin de Paris*), defends the intravenous method of administering remedies when rapidity of action is required. A patient suffering from rheumatic iritis was cured by ten injections of sodium salicylate into the veins. In severe cases of syphilis he prefers the mercuric cyanide to the corrosive chloride (of either the dose is generally less than .015 gramme and may go to .02 gramme, but not beyond). One centigramme, and sometimes less than this, may excite intolerance, which is manifested five or six hours after the injection by a diarrhoea. In secondary syphilis, or in cerebral syphilis, it should be used especially when ordinary measures appear to be insufficient. In syphilitic and rheumatic affections of the eye it has an important field of usefulness. The intravenous method has also been recommended for the administration of serum. The technique should be carefully carried out, and the skin over the vein selected should be sterilised and the vessel compressed to make it prominent; generally the median basilic or cephalic vein is selected.

DISEASES OF THE EAR, NOSE AND THROAT.

The Safest Method of using Paraffin Subcutaneously.

Large, in the *Laryngoscope* for April, 1907, has a short article detailing Prof. Gersuny's latest method of injecting paraffin subcutaneously. Gersuny adopted this method after he had two serious complications, one of emboli of the lung and one of blindness. Instead of just injecting paraffin of a low melting point into the subcutaneous tissues he proceeds in the following way:—Firstly, he makes aseptic the site of the injection by a scrubbing with soap, then a washing with alcohol and mercury bichloride solution. Two syringes are used, one large and one small, but both made to fit the one hypodermic needle. They are both boiled, the one being filled with Schleich's solution and the other (the larger one) with paraffin. He injects the Schleich's solution under the skin and then aspirates it again into the syringe. If the Schleich's solution return back into the syringe clear and not blood-stained it shows that no blood vessel has been entered. Then detaching the syringe, but having the needle *in situ*, he attaches the other barrel containing the paraffin and proceeds to inject slowly the paraffin, which has been allowed to become semi-solid. Gersuny says that he has not had a single bad symptom follow this method. Large summarises the points in this method as follows:—1. It is not to be used in a hot liquid state. 2. It should be injected according to this latest method of Gersuny. 3. Do not inject too much at a sitting; experience must

decide this point. 4. Thorough asepsis of skin, instruments and paraffin. 5. Plenty of loose tissue to allow for the artificial tumour without undue tension.

Two Cases of extensive Cholesterine Infiltration of the Mastoid Cells.

In the *Laryngoscope* for March, 1907, Dench details two cases in which he found the mastoid cells to be the seat of cholesterine deposits. The first case was a girl of 17 years of age who had had a suppurative otitis media for 12 years. It was decided from certain symptoms to perform the radical mastoid operation. A small cholesteatomatous mass was found in the mastoid antrum. The cells below the antrum down to the tip presented a peculiar appearance. Instead of a glistening lining characteristic of the healthy mastoid cells, the lining membrane of these cells wherever exposed was dull in colour, and the bone when removed either with the gouge or rougeur did not present the characteristics of healthy bone. Dench says it gave the appearance of the normal mastoid cells being filled with wax. This was thought to be a tubercular condition. The pathologist's report, however, showed an infiltration of all the mastoid cells with cholesterine. While cholesterine was found everywhere, even to the tips of the mastoid, very few germs were found. The other case was very similar, namely, cholesterine infiltration of all the mastoid cells, with a not very extensive cholesteatomatous mass in the mastoid antrum. The author says he thinks it very likely that where suppuration persists after an apparently complete radical operation it may be due to certain cells having been overlooked containing cholesterine deposits. He concludes that it would be wiser in every case where the least doubt exists in the mind of the surgeon as to the condition of the lower portion of the mastoid being normal to give the patient the benefit of the doubt by abating completely the entire mastoid process so as to eliminate every possible focus of disease. He says that from an increasing experience he concludes that the more radical we are in these radical operations the quicker the patients recover.

A New Method of Operating on Turbinal Hypertrophies.

In the *Laryngoscope* for February, 1907, Yankauer has a long article detailing a method of removing the thickened portions of the inferior turbinal bone and then stitching up the mucous membrane by a row of stitches and thus getting primary union. Yankauer says that he is able by means of special instruments to insert stitches even as far back as the posterior end of the inferior turbinal body, and claims that it is no more difficult to sew up a wound in the interior of the nasal passages than to perform any other delicate intranasal operation, and that any one who can perform, for instance, a submucous resection of the septum will be able to use the intranasal suture.

Cervical Adenitis with reference to Mouth Infection.

Donoghue (the *Boston Medical and Surgical Journal*, March 28th, 1907) concludes from a study of 300 cases that enlarged glands in the neck are not, primarily, tuberculous, and do not bear any relation to general or pulmonary tuberculosis. He thinks they are due to a mixed infection of pus-producing bacilli, and will quickly resolve if the source of the infection be removed. If breaking down occur they should be opened by a stab-puncture, emptied and drained, and they may need to be extensively dissected out.

MEDICAL MISCELLANY.

DURING the year 1906 there were vaccinated in the Pass Office, Johannesburg, South Africa, 57,618 natives, while an additional 35,561 were examined and passed as having been previously successfully vaccinated. This makes a total of 93,179 natives who in 12 months passed through the hands of the two public vaccinators, whose united salary amounted to 92,000 pence! The most zealous retrenching Government will hardly find it possible to cut down the emoluments of these two valuable appointments.

The City Health Officer of Cleveland, U.S.A., has appointed 1000 citizens as a special sanitary police force for the purpose of putting down the habit of expectorating on the streets. They are not paid, but have full power to arrest anyone infringing the regulations.

The Japanese sailors who disembarked at Gibraltar recently for an outing all carried their own water bottles containing sterilised water. No aspersion was intended for the sanitary resources of the Rock, but the Japanese officers realise that when a good thing in disease-prevention is found it is as well to stick to it under all circumstances.

Dr. Sims Woodhead and Mitchell find that opsonins occur in milk in greater relative quantity than in the blood. They suggest that the milk-feeding of infants may thus tend to impart to them passive immunity against tuberculosis.

In Scotland during the week ended May 4th there were 30 deaths from cerebro-spinal fever registered in Glasgow, 7 in Edinburgh, 4 in Leith, 3 in Dundee, and 1 in Paisley. In Glasgow the weekly report issued on May 3rd showed that there were at that time 133 patients under treatment. In Belfast there has now been a total of 365 cases with 254 deaths.

During the last half century the deaths from pulmonary tuberculosis at Rochdale, England, have fallen to 1.32 per 1000, being 2.33 per cent. lower than the rate at the beginning of the period.

At a meeting of the Fabian Society, London, recently a paper was read on Socialism and the Medical Profession. Medicine having its origin in the mysterious, it evolved by various steps to the ecclesiastical period, when it was in the hands of the Church in the middle ages. This was followed by the commercial or guild system, when the healing art was preached by smiths and barbers. From this point development had taken place, until there were signs that a third stage, the stage of a State medical service, was approaching. From the medical profession itself the lecturer said there was a widespread demand for State interference, as was shown by the bills now before Parliament, one of which aimed at the creation of a State medical examination. Hospitals, it was urged, would have to be placed on the rates, and some form of insurance against sickness instituted. It was pointed out that the condition of the housing of the population was the chief obstacle to the improvement of the public health.

The latest microscope is an "ultra-violet instrument," so powerful that it reveals germs and other structures hitherto unseen. Ultra-violet light is invisible to the naked eye, though it can be detected by a photograph negative. The new instrument, which Zeiss, requisitions a light so far beyond the violet

that its length wave is only half that of ordinary sunlight, and two points can be seen twice as close together as by the ordinary microscope. As glass of any kind is opaque to violet light, the lenses are made of pure poroh crystal, and the reflector has the silver on the front instead of on the back.

The unskilful use of the X-rays was earnestly deprecated at a recent meeting of the German Rontgen Society in Berlin. It was declared to be dangerous to life to permit unlicensed people to make diagnoses by means of these rays.

Japanese surgeons can dress the wounds of 500 men at a cost of 24 cents. They use finely powdered charcoal obtained by the slow combustion of straw in closed furnaces. Sachets filled with it are applied to the wounds, and its antiseptic and absorbent qualities generally effect a rapid cure.

Professor Wolfram C. Fuchs, of Chicago, has finally succumbed to carcinoma, set up by exposure to the X-rays. The list of deaths from the use of the X-rays in that country is somewhat appalling, five having been reported.

The French Minister of the Interior has notified all the prefects throughout France that they must organise a "mothers' dispensary" or consultation for infants.

The medical building of the McGill University, Canada, was destroyed by fire on April 16th last. The magnitude of the loss cannot be estimated in cost. What can be repaired by the expenditure of money will be repaired, but the loss to science and individuals is irreparable.

The coroner for Southwark, London, remarked to the jury concerning the death of a boy that the anæsthetic used in the case was ethyl chloride. Since 1895 it had become general as applied to dental operations. He knew of 22 fatalities altogether from the application of that particular anæsthetic during the last three years.

It is reported that the honorary freedom of the city of London will shortly be conferred on Lord Lister in recognition of his eminent services to science.

In a trolley accident in New England, U.S.A., an Irishman was badly hurt. The next day a lawyer called on him and asked if he intended to sue the company for damages. "Damages," said Pat, looking feebly over his bandages; "sure I have them already. I'd like to sue the railway for repairs, sor, av ye'll take the case."

In Germany there are at present 87 sanatoria for the treatment of tuberculosis, and these are for the use of the masses. These sanatoria provide 8422 beds. In addition to these there are 17 sanatoria for children suffering from that disease, and, further, there are 35 private hospitals where tubercular patients are received. These figures contrast painfully with British efforts to fight the white man's plague.

All the opium-smoking dens in Foo Chow, China, are reported to have been closed by the authorities, and it is declared that the Viceroy of Pe-chi Li Province has ordered all the local magistrates to establish "anti-opium shops" for the reception of poor and needy opium smokers, who will be induced to live in these places free of charge with a view to curing themselves of the habit.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Oxford's Impecuniosity—Death of Professor Bergmann—King's Hospital Fund—Behring's Treatment of Tuberculosis—Royal Medical and Chirurgical Society—Medical Fees in Berlin—New Chancellor of Oxford University.

WHILE some of the colleges at Oxford are rich, the University is notoriously poor and scarcely succeeds in making both ends meet. It has in contemplation an appeal to the public, similar to that recently made by the Duke of Devonshire on behalf of Cambridge. According to a writer in the *Daily Mail*, the sum urgently required to enable Oxford to meet the educational demands of the present day, to keep pace with the general advance of the outside world, and also to maintain her existing institutions, is a minimum of a quarter of a million. When raised, the required sum will be appropriated to specific needs, in something like the following scale:—Science, £100,000; additional buildings, £50,000; Bodleian Library, £50,000; modern languages, £30,000; history, £20,000; total, £250,000. In the course of his article, this writer proceeds to say that it is curious to reflect, "when one remembers the wording in which Mr. Cecil Rhodes bequeathed his great bequest to his Alma Mater, that it is the introduction of the Rhodes scholars more than anything else which has led Oxford to 'wake up' to the educational need of the hour. It has been brought home by Rhodes students to professors 'living secluded from the world,' and 'as children in commercial matters,' that Oxford lacks facilities for training in certain subjects, which receive the utmost attention from every modern, and, indeed, nearly all other, universities. At Oxford for instance, the student who intends to make engineering his profession cannot qualify himself for admission to the Institute of Civil Engineers. Many of the Rhodes scholars wish to be engineers, and Oxford feels that she must meet their case and that of the hundreds of others who require the training which at present they have to seek elsewhere than at Oxford. There are now about 200 Rhodes scholars at the University. They come from all the colonies, from the United States, and from Germany; and they have created a new atmosphere. Oxford realises that while maintaining the old traditions of culture, she must also offer to these young men the advantages of up-to-date equipment. A study which has grown, and which grows enormously, is that of English. Here again the demands of the Rhodes scholars, Anglo-Saxon and German, are a spur to action; but the whole Empire is demanding teachers, in this world-wide language, and Oxford's poverty is a bar to the provision of adequate instruction in this as in other modern languages. The dream of a Professorship of Japanese is another that only increased funds can realise."

Professor Ernst von Bergmann, Director of the Royal Surgical Clinique attached to the University of Berlin, died suddenly on March 25th at Wiesbaden. He was born in 1836, and first entered the University of Dorpat as a student of theology. Subsequently he turned his attention to medicine, which he studied at Dorpat, Vienna, and Berlin. In 1866 he laid the foundation of his fame as an army surgeon in a field hospital in Bohemia, and during the Franco-German War he organised and directed the field hospital at Mannheim and Carlsruhe in a manner which gained him universal

approbation. On the conclusion of the war he returned to Dorpat, served as a consulting surgeon with the Russian Army on the Danube in 1877, and in 1878 was appointed Professor at Wurzburg University. In 1882 he accepted a call from Berlin University as Professor of Surgery and Director of the Royal Surgical Clinique. The magnificent organisation in Berlin for rendering first aid to persons injured in street accidents, or otherwise placed in positions needing immediate medical assistance, is largely the result of his efforts. Modern war surgery, as practised by the Japanese in the late war, also owes much to Professor von Bergmann. He was the recipient of numberless titles and orders from foreign potentates, and German and other learned societies. The German Emperor bestowed on him the title of Excellency, and made him a life member of the Prussian House of Lords.

The annual meeting of the general council of King Edward's Hospital Fund, to receive the accounts and the report for the year 1906, was held at Marlborough House on March 15th, under the presidency of the Prince of Wales. Lord Rothschild, the hon. treasurer, presented the accounts, which were adopted on the motion of the Prince of Wales, seconded by Sir Henry Burdett. Mr. Danvers Power read the draft report of the Council for the year 1906, which showed that the sums received during 1906, in addition to £42,106 8s 3d, interest from investments, were as follows:—Donations, £2685 1s 3d; annual subscriptions, £23,218 1s 7d; from the League of Mercy, £18,000. The total income of the fund from general sources amounted to £110,965 16s 1d, plus £20,033 10s 8d on capital account. The amount distributed was £111,000, including £1000 entrusted to the fund for distribution among convalescent homes by the London Parochial Charities. The Prince of Wales, in moving the adoption of the report, said:—"At our last meeting in December I went fully into the various questions affecting the fund; I do not propose to do more to-day than to formally move the adoption of the report. I consider the meeting of the Council to pass the distribution of our funds to be the most important one of the year, and I therefore intend for the future to keep any remarks I may have to make for that occasion. But I should like to take this opportunity of thanking Sir George Craggs, who was one of our honorary secretaries from the foundation of the fund until last June, for his invaluable services, which have been of the greatest assistance to the fund, and have involved the expenditure of an enormous amount of time and trouble on his part. We cannot be too grateful to him for what he has done for us, and we are all, I am sure, very glad to know that we shall still have the benefit of his advice as a member of the Council and committees on which he serves. I now move the adoption of the report." The resolution was seconded by Sir William Collins, and carried unanimously. On the motion of the Lord Mayor, seconded by Mr. H. Percy Harris, Chairman of the London County Council, a vote of thanks was accorded to the Prince of Wales for presiding.

Professor Behring, of Marburg, read a paper on his recent investigations into the prevention of tuberculosis in cattle and in man before the German Agricultural Council on March 14th. He maintained that the majority of the bacilli which find their way into the human system are taken into the stomach with food, and not, as is usually supposed, inhaled through the mouth and nose. He protested against the Pasteur process for rendering milk pure, and declared that the boiling and sterilisation of milk made it unsuitable as food for infants. The only proper means of obtaining

a milk supply pure and free from noxious bacteria was to have healthy cattle. Dr. Behring considers it probable that scarlet fever may be conveyed to mankind through the medium of milk, when the persons who attend and milk cows are infected, and he suggests that it would be preferable to prohibit the sale of milk from farms where scarlet fever is raging, as is already done in the case of epidemics of typhus, dysentery and cholera, rather than to trust to sterilisation to remove infection. His experiments with healing human tuberculosis by means of his tulaselectine are proving most satisfactory, and he considers that the time is approaching when the human foetus can be rendered immune.

The annual meeting of the Royal Medical and Chirurgical Society of London was held at the Society's rooms in Hanover Square on March 1st; Mr. Warrington Haward, the president, being in the chair. The report of the Council and the treasurer's accounts were read and adopted. After the annual presidential address, the following officers were elected for the ensuing year:—President, Mr. Warrington Haward; vice-presidents, Sir Lauder Brunton, Dr. T. Henry Green, Mr. W. Harrison Cripps, Mr. Herbert W. Page; hon. treasurers, Sir Wm. Church, Mr. Alfred Pearce Gould; hon. secretaries, Dr. Howard Tooth, Mr. Stephen Paget; hon. librarians, Dr. Norman Moore, Mr. Rickman Godlee; members of council, Dr. Dyke Acland, Dr. Clifford Beale, Dr. Dudley Buxton, Dr. Phillip Frank, Dr. George Ogilvie, Mr. Bland Sutton, Mr. Andrew Clark, Mr. Walter Jessop, Mr. Bilton Pollard, Dr. Waechirter Dunbar.

The question of medical and surgical fees is a vexed one in Germany, but though the remuneration with which professional services are rewarded is, in the majority of instances, sadly inadequate, we may console ourselves that we are better off in this regard in England than are our brethren in Germany. From the *British Medical Journal* we learn that the medical profession of Berlin has recently decided upon the following tariff, which represents an increase on the fees previously charged:—1. For a first visit at the patient's house, 3 marks (the mark for practical purposes may be taken as equivalent to a shilling). 2. For each subsequent visit in the course of the same illness, 2 marks. 3. For an emergency call, 5 marks. 4. For a night visit, between 9 p.m. and 6 a.m., 6 marks. 5. For every half-hour spent at the patient's bedside, and for every subsequent part of a half-hour, 2 marks in addition to the ordinary fee for a visit; at night (between 9 p.m. and 7 a.m.) the corresponding additional fee is 5 marks. 6. For each visit at the doctor's house, 2 marks. 7. For each visit at the doctor's house, outside his usual hours during the day, 3 marks. 8. For each visit at the doctor's house between 9 p.m. and 7 a.m., 4 marks. 9. For each laryngoscopic examination, 3 marks. In special cases the charges may be at higher rates.

The Sheldonian Theatre at Oxford presented a busy scene on March 14th, when voting took place for the election of a new Chancellor in succession to the late Viscount Goschen. At seven o'clock, when the poll closed, the senior proctor announced the following result:—For Lord Curzon, 1101; for the Earl of Rosebery, 440; majority for Lord Curzon, 661. Lord Curzon was chosen as candidate for the Chancellorship at a Conservative meeting summoned by the President of St. John's, and at a subsequent non-party meeting summoned by the Vice-Chancellor at Magdalen College. Lord Curzon received double the number of votes given for either of the other candidates proposed. He was then officially nominated for the office, but afterwards

Lord Rosebery, in response to a requisition largely and influentially signed, agreed to be also nominated. There are 6000 voters on the register of convocation, so that about 25 per cent. of the electorate polled, which, considering that the voters are scattered all over the world, is a very large poll. Lord Curzon's victory was expected, as the Conservatives are in a large majority in convocation, and it was never considered likely that even so distinguished a Liberal as Lord Rosebery would be elected against such a popular candidate as Lord Curzon. Lord Curzon's Oxford and London committees have issued a message returning their best thanks "to the non-resident members of convocation who at great expense of time and trouble to themselves have secured for him the splendid victory of to-day."

"THE LONE HAND."

(To the Editor of the *Australasian Medical Gazette*.)

Sir,—While giving credit to the *Lone Hand* for exposing quack nostrums, please take note that the blushing *Bulletin* (parent of the *L.H.*) has 32 advertisements of quackish remedies in its current issue.—I am, etc.,

SQUILLS.

Sydney, July 22nd.

Hospital Dispute at Launceston.

FOR some years past considerable friction has existed between the board of management of the Launceston General Hospital and the medical practitioners in that town. This matter has been referred to in these columns on previous occasions. The following correspondence has been published:—

"Launceston, April 25th, 1907. The Honourable the Premier:—Sir,—We beg to call your attention to the action of Launceston Hospital Board at the last meeting held on April 18th last. We enclose a copy of the report of the meeting—(1) In appointing a third resident medical officer without calling for applications in the public press, thus preventing any young medical man, whether in Tasmania or the other States, from having the opportunity of applying for the position. (2) While doing so, in allowing the surgeon-superintendent, whose salary has just been increased to £600 per annum, quarters, etc., to continue to carry on what is really private practice in the town. We would point out that the board not only allows but actively encourages the surgeon-superintendent to carry on such private practice not only at the hospital but out of doors, and that that gentleman regularly administers anaesthetics, visits patients, and performs operations for fees. In this private practice he makes use of the hospital rooms, appliances and instruments, whereas the private medical men have to provide all these themselves. Were the surgeon-superintendent to confine his attention and give his whole time to the work of the public charitable institution, of which he is the well paid public servant, there would be no necessity for the appointment of a third medical officer. The appointment seems to us to be made largely to permit of the senior officer extending his private work. We would also beg to point out to you that there is no paid Government medical officer in Launceston, as in Hobart, to visit the sick poor, but that this is done by the private medical men in the town, whereas the General Hospital is catering more and more for the richer classes. The whole question of hospital abuse has been previously brought before your notice, and a Royal Commission has reported on the same, so that there is no need to refer

further to that question to point out that the action of the Hospital Board has been, and still continues to be, one of direct opposition to the Commission's suggestions. The Mayor of Launceston, the only representative of the public on the board (the other members being self-elected), opposed the action of the board (*vide* report), but was outvoted. As medical men we have no objection to the surgeon-superintendent's salary being what the board may decide on, but, to sum up, we strenuously protest against the board—(1) Appointing a medical officer without calling for applications. (2) Permitting the surgeon-superintendent to carry on private practice in any shape or form. (3) Giving orders for admission to, and treatment at, the General Hospital to people who can well afford to pay for such treatment. We would respectfully ask that you should give this matter your serious consideration, as it affects not only the medical profession but the proper administration of a great charitable institution and the taxpayers who maintain it. No such abuses are allowed to exist at the Hobart General Hospital.—We are, etc., W. G. Maddox, G. H. Hogg, Charles Parker, Charles J. Pike, Jas. M. Pardey, J. A. Webster, Geo. E. Clemons, R. C. Irvine."

"Chief Secretary's Office, Hobart, May 17th, 1907.—The Chairman Board of Management, General Hospital, Launceston:—Sir,—I have the honour to enclose herewith a communication received from certain of the medical practitioners of Launceston, in which exception is taken to the following:—(1) The appointment of a junior house surgeon without calling for applications in the press. (2) The performance of private practice by the surgeon-superintendent. (3) Admission to the hospital of persons able to pay outside fees. I shall be glad if the Board of Management will consider these matters, and let me have an expression of their views thereon as soon as practicable. In regard to (1), it occurs to me that there is some justification for complaint, as young medical men in this and other States should have had the opportunity afforded them of applying for the position. I have always held the opinion that anything approaching to competition by the paid officers of a State-aided institution, such as the Launceston Hospital, with the outside profession is irregular and inequitable. I take this opportunity of again referring to the proposed increase of Dr. Ramsay's salary, and of informing you that under the special circumstances the Government would probably have no objection, provided he is debarred from the outside practice above referred to.—Yours, etc., J. W. Evans, Chief Secretary."

"Launceston, June 6th, 1907.—The Hon. the Chief Secretary, Hobart:—Sir,—I have the honour to acknowledge receipt of your communication of the 17th ult., together with letter of complaint against the Board of Management received by you from certain medical practitioners of Launceston, in which exception is taken to the following:—(1) The appointment of a junior house surgeon without calling for applications in the press. (2) The performance of private practice by the surgeon-superintendent. (3) Admission to the hospital of persons able to pay outside fees. 1. Complainants state: 'Were the surgeon-superintendent to confine his attention, and give his whole time to the work of the charitable institution, of which he is the well-paid public servant, there would be no necessity for the appointment of a third medical officer.' This statement appears to be made for the express purpose of bringing pressure to bear upon the Government in order to abolish Dr. Ramsay's outside work. If this be not the motive, then we unhesitatingly say it is

made in ignorance of the actual facts. Some years since the daily average of in-patients was 65 to 70, whereas for some months past it has never been less than 100, and occasionally up to 130, with a considerable increase in the out-patient department, and a very large increase in the number of operation cases, besides the addition of a bacteriological laboratory. If, therefore, 70 occupied beds fully engaged the time of two resident officers, is it reasonable to expect that, with an increase of 50 per cent. in the number of patients, this does not necessitate additional help? The appointment was made on the recommendation of the visiting committee, who suggested that it should be with board and residence, but without salary (and Dr. McArthur, a former resident medical officer of the Launceston Hospital, and now a leading Melbourne surgeon, had written recommending Dr. Sweetnam, who was prepared to come at once), and the board, considering that such an appointment would probably not be run after, seeing it was without salary, thereupon made it at once, subject to the approval of the Governor-in-Council, the more so that the appointment was urgent, because the hospital had for some months been crowded with patients. The suggestion of giving a salary of £50 per annum was made at the board meeting, and then by a medical member. Three of the complainants were present at the meeting of the board held on the 16th ult., and they, after protesting against the method adopted, unanimously voted in favour of the appointment. With these explanations, we think there is little to complain of under this head. 2. For 20 years or more the surgeon-superintendent has been allowed practice outside the hospital, within the city boundary, in consultation with a private medical practitioner, and the present surgeon-superintendent has not exceeded in this respect his just rights, as recognised by rule 65, which reads as follows:—'He shall not be concerned in any medical or surgical practice or in any business than that of the hospital, except in consultation with any medical practitioner within the boundary of the city of Launceston. This consultation practice embraces not only the right to give his advice, but also to take part in operations, with the concurrence and usually at the request of the private medical practitioner. We would submit the following considerations why the present practice should not be interfered with:—(a) The right to practice outside the hospital, with the limitations already referred to, forms one of the conditions in the appointment of the present surgeon-superintendent. (b) Any interference with this condition is likely seriously to disturb Dr. Ramsay's relation to the hospital. (c) It is most undesirable that the public should be debarred from getting the advice and help of a highly competent surgeon should they so desire, and with the restriction named above, the private medical practitioners are sufficiently safeguarded. (d) It is surely in the interest of the complainants, did they but recognise it, to be only too willing to allow things to continue as they are. Under the existing conditions, if the surgeon-superintendent is called in to an operation case and takes part in it, the private practitioner participates in the fee, and also derives all the additional pecuniary benefit by attendance on the patient, whereas, if the surgeon-superintendent is debarred from outside practice, many of such patients are likely to say: 'Well, if Dr. Ramsay is not allowed to come to us, we will go to him by seeking admission to the hospital. The influence in this direction will, doubtless, be all the stronger when the new operating theatre is opened, and the yet larger facilities afforded for minimising risk. (e) The statement of

complainants that 'the board not only allows but actively encourages the surgeon-superintendent to carry on private practice' is absolutely without foundation, and we indignantly repudiate the charge. 3. Complainants further state: 'There is no paid Government medical officer in Launceston, as in Hobart, to visit the sick poor, but that this is done by the private medical men of the town, whereas the General Hospital is catering more and more for the richer classes.' The members of the board emphatically repudiate this statement, as we have always contended that, primarily, the hospital is for the poor, and have never excluded the poor for the sake of those who could pay; but we do recognise that, because of the high-class work done at the hospital, it has necessarily become more attractive to the public. Whilst the hospital is primarily for the poor, yet those who can pay fees, whether much or little, have, as taxpayers, the right of admission. It may be remembered that, some two years since, the same issue was raised, and the Premier confirmed the principle, but contended that those who could pay should be required to do so, in proportion to their means; and further, he represented that this was the wish of the private medical profession. The board has since carried out this principle, with the result that the large increase in fees since that time is due in part to the increased charges. The board is of opinion that, in small centres such as Launceston, where there are no recognised specialists in the medical profession, the best surgical work can be done by those who are in constant practice (as at the hospital), and where all the accessories are so much more complete than obtain elsewhere in the city. If it were a mere question as to who should make the largest profits, we should leave those immediately concerned to fight it out amongst themselves; but seeing that the higher issues of life and death are involved to hundreds of patients, we should fail in our duty if we did not abide by the principle here enunciated. Complainants object that members of the board are 'self-elected.' They overlook the fact that such appointments are subject to the approval of the Governor-in-Council. The only motive influencing the members of the board is the desire to promote the best interests of the hospital, and we are of opinion that the present mode of appointment is much preferable to a popular election. In evidence of this we need only refer to the disgraceful proceedings which too frequently occur in some of the other States, where the elections are on a popular basis. From the entire tone of complainants' letter one might suppose that the medical profession had no representation on the board, whereas there are no less than five of their number who are members of the board, and elected in the same manner as the rest. Complainants request the Premier to give consideration to matters which affect 'the proper administration of a great charitable institution, and the taxpayers who maintain it.' The appeal made on behalf of the 'taxpayers' is most unfortunate, as the argument is all on the other side, seeing that at the present time the receipts from the hospital fees are saving the taxpayers about £2000 per annum—more than 5s out of every £1 expended in the maintenance of the institution. From the cogent reasons herein given by the board of management regarding the important matters referred to them for comment thereon, we trust that the Hon. the Chief Secretary will see that they are of such vital consequence to the well-being of this hospital as to call forth the serious and very careful consideration of himself and the other members of the Government.—I have the honour to be, etc., F. Stanfield, Chairman of the Board."

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, the Medical Officer of Health, reports for the month of June, 1907:—Deaths registered in the metropolitan municipalities numbered 460, exclusive of those in the Gladesville and Callan Park Hospitals for the Insane. The mortality is very much less than that experienced in the months of April and May, and is equal to an annual mortality rate of 9.94 per 1000 of the estimated mean population. When corrected by the inclusion of the metropolitan proportion of the deaths in all the benevolent asylums and hospitals for the insane throughout New South Wales, the death rate becomes 10.78 per 1000, and more accurately represents the true state of affairs. The cause which was largely responsible for the high mortality of May—**whooping-cough**—was again very fatal in June, though not nearly to the extent experienced in the previous month. Thirty-three deaths were due to this disorder in June, all of which were among young children. Other infectious diseases caused 14 deaths, of which two were due to measles, two to influenza, four to diphtheria, two to typhoid fever, two to cerebro-spinal fever, and two to puerperal fever. Diarrhoeal diseases were responsible for 20 deaths—a monthly total which is below the average for June. Phthisis caused a mortality of 27, cancer 4, and Bright's disease 31, compared with previous quinquennial averages for June of 40, 30, and 27 respectively. Diseases of the heart and blood vessels were again very fatal, and caused 73 deaths. Respiratory diseases caused a much lower mortality than usual in June. They caused 59 deaths, of which 24 were attributed to bronchitis and 31 to pneumonia. Deaths of infants numbered 108, which is equal to an infantile mortality rate of 100 per 1000 births. This is a higher rate than has been experienced in June for seven years, and it was largely contributed to by the mortality from whooping-cough, which caused 15 infantile deaths. The other principal causes of deaths of children under one year were—prematurity, 19 deaths; developmental diseases, 21; convulsions, 7; respiratory diseases, 18; enteritis, 17. Of the notifiable infectious diseases, 138 attacks were notified. Of these, 79 were scarlet fever, 43 diphtheria, and 16 typhoid fever. In each case the numbers are below the average. Within the city of Sydney nine cases of pulmonary consumption were notified under the City Council's by-laws. Eight dwellings were disinfected after deaths from phthisis, and two dwellings after removal from them of living consumptives.

Whooping Cough Epidemic.—The severe epidemic of whooping cough which has been passing over the metropolis appears to be abating. Since the beginning of the year the complaint has resulted in 154 deaths in the city and suburbs, and the unusual severity of the outbreak may be gauged from the fact that during the whole of 1906 only three deaths resulted from the disease in the whole of the metropolitan area. During June there were, according to a report just issued by the Bureau of Statistics, 34 deaths, and judging by these figures, it is assumed that the epidemic is abating. The present outbreak is rendered the more dangerous by reason of the large number of cases in which broncho-pneumonia and other complications have occurred.

The Sydney Water Supply.—Dr. Stokes, Medical Officer for the Board of Water Supply and Sewerage, reports as follows:—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, June, 1907:—

Colour	15° Brown.
Clearness	Marked
Odour	NIL.
Suspended matter	Very slight.
Total solids	8·4000
Chlorine	3·1000
Free ammonia	·0000
Albuminoid ammonia	·0103
Nitrogen as nitrites	·0000
Nitrogen as nitrates	·0070
Oxygen absorbed in 15 minutes	·0258
Oxygen absorbed in 14 hours	·0548
Permanent hardness	1·7
Total	2·7

NOTE.—Parts by weight per 100,000.

death, the average being 13 cases, with 1 death. The figures relating to diphtheria were normal as regards the whole State, for which there were 79 cases and 3 deaths, as against the average of 83 and 4 deaths. For the metropolitan area an increase was shown, the cases numbering 48, with 1 death, as against the average of 43 cases, with 2 deaths. Scarlet fever is remarkably rare at present, there being only 10 cases throughout the whole State, as against the average of 80. In the metropolitan area there were 6 cases, the average being 42.

Cerebro-spinal Meningitis.—A circular has been issued to the Municipal Council from the Public Health Department respecting the infectious disease cerebro-spinal meningitis, otherwise spotted fever, which has recently appeared in epidemic form in Great Britain. Two cases have also occurred in Victoria. The board urges municipal councils to prevent spitting about streets and public places. Power has been given to councils to make a by-law prohibiting spitting on

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during June, 1907:—

Final Effluents from —	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification.		Incubator Test. Seven days at 87° C
			Suspended Solids.	Chlorine.	Free Ammonia	Albuminoid Ammonia.	Nitrogen as		Oxygen Ab- sorbed in		Albuminoid Ammonia.	Oxygen ab- sorbed in Four hours.	
							Nitrites.	Nitrates	Three Minutes.	Four Hours.			
Chatswood ..	.. Faint	Nil	3·23	10·8	2·152	·185	trace	·441	·270	·722	92·4	88·2	No decomposition
Folly Point..	.. Faint	Nil	1·08	10·3	2·727	·155	·008	·979	·141	·573	91·4	87·1	„ „
Balmoral ..	.. Faint	Nil	1·00	6·0	·286	·112	·016	·673	·165	·669	85·2	62·7	„ „

Laying the Dust.—An experiment with calcium chloride as a dust layer was authorised by the Lord Mayor (Alderman Thomas Hughes) some time ago, and it was carried out in Hunter-street between Pitt and Elizabeth streets, and in Phillip-street between King and Hunter streets. The City Surveyor has reported to the Works Committee that there was no doubt about the efficiency of this agent as a dust layer. It gave the street a glazed appearance, which lasted about a week, and the dust on the sides of the road treated with calcium chloride where it was thickest had a damp appearance for the same time. After rain this appearance was renewed, and lasted for some days. The length of time calcium chloride could be relied upon to keep down the dust is uncertain, but the cost, as compared with water, was more than double, and under the circumstances said he was not disposed to recommend it. The report was received, and it was decided to recommend it to the Council for adoption.

Victoria.

Infectious Diseases.—The health statistics presented to the Board of Health for the fortnight ended June 15th were, on the whole, satisfactory. The cases of typhoid reported for the whole State numbered 26, with 3 deaths, as against the average for the previous four years of 59, with 8 deaths; and for the metropolitan area there were 6 cases, with 1

footpaths. Besides the danger of consumption being propagated by spitting, the board states that certain micro-organisms, such as the pneumococcus and meningococcus, are frequently found in the nasal mucus of healthy people, and that the sputum from such persons may, under certain conditions, favoured by indiscriminate spitting, give rise to cerebro-spinal meningitis. Some of the councils have already had notices put up for the purpose of stopping spitting in the streets.

Supervision of Dairy Factories.—In order that some control may be exercised over butter factories, cheese factories and creameries in districts to which the Dairy Supervision Act does not apply, it has been decided to give certain officers of the Agricultural Department powers in reference to those sections of the Health Act dealing with the sanitary condition of such premises. Consequently the cheese and dairy experts attached to the export branch, as well as 15 of the dairy supervisors, have been appointed as inspectors under the Health Act. It is expected that the powers conferred upon them in this way will enable them to exercise a salutary influence in regard to nuisances and insanitary conditions they may discover in country districts.

Melbourne Water Supply.—The annual report of Dr. Bull, of the University Bacteriological

Laboratory, on the water supply of Melbourne, presented to the Metropolitan Board, shows that the water at the taps and at the Yan Yean outlet is good, and in the latter instance the best recorded. The proportion of micro-organisms in the creeks, including those which flow direct into the Preston reservoir, connected with the system, is higher than formerly, and Dr. Bull makes the suggestion that a storage reservoir should be provided in the Maroondah catchment area.

South Australia.

Health of the Metropolis.—The Officer of Health reported that during the fortnight ended June 22nd four cases of typhoid fever, one of scarlet fever, two of erysipelas, one of measles, two of puerperal septicaemia, and six of pulmonary tuberculosis were notified. All the cases of typhoid fever were imported from the suburbs and country for hospital treatment. The case of scarlet fever was isolated at home. The case of measles was imported from Melbourne, and removed to hospital for isolation and treatment. Of the two cases of erysipelas, one was imported from the suburbs for hospital treatment. The remaining case was isolated at home. Of the two cases of puerperal septicaemia, one was imported from the suburbs for hospital treatment. The remaining case was removed to hospital for isolation and treatment. Of the six cases of pulmonary tuberculosis three were imported for hospital treatment. Of the remaining three cases one was removed to hospital and two were at home under the city trained nurse's supervision. The city trained nurse had made 141 visits to 57 cases during the fortnight, and finally disinfected nine houses. Of the 141 cases under her care one was suffering from typhoid fever, one from erysipelas, one from puerperal septicaemia, three were suffering from scarlet fever, and 50 from pulmonary tuberculosis.

Tasmania.

Rat Destruction.—The Chief Health Officer (Dr. Elkington) is satisfied with the progress of the rat-destruction measures at the Hobart wharves carried out under the direction of the Department of Public Health. When the work was commenced early in the year the locality literally swarmed with rats. The animals were to be seen by scores under every wharf at low water, feeding on the edible garbage cast up. The principal measures taken have comprised systematic poisoning on the foreshores, fumigation of runs and warrens, and the removal of edible garbage. The department's men now frequently work from one end of the wharves to the other without seeing a single rat. Baits are still being taken, and it is probable that a large number of rats from the premises adjoining the wharves are thus being destroyed by the wharf operations. The Marine Board is arranging to demolish the old stone buildings formerly used as a skin store, and this will remove a noted harbourage for rats. The operations will be continued, as, in addition to its destructive value, the work affords a very useful means of enabling any local outbreak of the disease amongst rats to be dealt with at an early stage.

New Zealand.

Plague in Auckland.—During the month of May there was a slight outbreak of plague. Two deaths occurred from this cause, but the vigorous sanitary measures immediately taken by Dr. J. S. Purdy, District Health Officer, checked the progress of the disease. Dr. Mason, Chief Health Officer, and Dr.

Makgill, now bacteriologist at Wellington, visited Auckland, but later returned south. The local authorities co-operated with the Health Department, and the result is that Auckland is cleaner than it ever was before, and that the much-needed drainage scheme has received an impetus in the right direction.

Native Health Officer.—From *Sharland's New Zealand Medical Journal* we learn that "Changes are being made by the Native Health Office. Dr. Pomare, stationed at Wellington, will have charge of the Maori settlements south of Auckland Province, and Dr. Buck (Te Ranghiaroa) will have charge of the Auckland settlements. Dr. Wi Repa, who creditably obtained a diploma at Dunedin, and is gaining experience in hospital work, is mentioned as an assistant native health officer. If the Maori people are to be saved, it will be mainly through the heroic work of their medical officers, of whose up-hill battle very few Pakehas have any conception."

Queensland.

Dr. B. B. Ham, Commissioner of Public Health, reports for the four weeks ending July 6th, 1907:—Brisbane.—No case of plague has occurred within the State since May 31st. Plague in rodents.—During the period 2538 rats and 382 mice were destroyed; 1843 rats and 364 mice were examined; 2 rats were infected. Note.—Two cases, the details of which are given below, have inadvertently been omitted from previous bulletins:—1. An infant, male, aged seven days, died shortly after the death of its mother—case 28, reported at the Lady Bowen Lying-in Hospital, Brisbane. The autopsy revealed the presence of *B. pestis*. 2. O'C. J., male, aged 45 years, landlord of the hotel in Queen-street, Brisbane, from which cases 32 and 33 were removed. The patient presented mild symptoms of bubonic plague, and was visited by the Health Officer on May 31st. The microscopical and cultural tests were negative, but a guinea-pig inoculated with pus from a left femoral bubo died seven days afterwards—June 6th. The post-mortem appearances of the animal were characteristic, numerous *B. pestis* being found in all the organs. The number of cases in the metropolitan area since January 1st is therefore 36. The two patients reported as remaining under treatment have been discharged from the Colmslie Plague Hospital, and the institution thereupon was closed. One infected rat was found at the Market Wharf. The last infected rat (26th June) was from a Government building in the city.

UNIVERSITY OF SYDNEY.

At the monthly meeting of the Senate of the University, held on July 1st, 1907, the degree of Master of Surgery (Ch.M.) was conferred upon Messrs. R. G. Wade and G. H. Vernon. A letter was received from the hon. secretary of the University Union Building Committee, conveying the thanks of the Senate for undertaking to supply the site and the funds for the proposed Union building, and submitting a sketch plan showing the requirements of the building. The matter was referred to the building committee. On the recommendation of the University Extension Board, Mr. C. Hedley, of the Australian Museum, was appointed as an additional lecturer under the board. A letter was received from the secretary of the Chamber of Commerce, conveying a resolution passed by the Associated Chambers of Commerce of the Commonwealth of Australia, held at Hobart, in favour of the teaching of

commercial subjects in universities and schools. Letters were received from the Bishop of North Queensland and Chief Justice Way, Chancellor of the University of Adelaide, in reference to the necessity of providing a research fund of £250 in connection with the scheme for the establishment of an institution for the investigation of tropical diseases. After discussion, it was resolved that the sum of £100 be granted by the University of Sydney towards a tropical diseases research fund in connection with the scheme of the Bishop of North Queensland, on condition that the balance of £150 be provided by the Universities of Melbourne and Adelaide. It was agreed that the surplus incomes from the Barker, Cooper, and Lithgow scholarship funds should be devoted to the establishment of post-graduate scholarships in the respective subjects.

HOSPITAL INTELLIGENCE.

Brisbane Hospital.—At the meeting of the committee of the Brisbane Hospital held last month the following medical reports were submitted for the three weeks ended June 8th:—In-patients: Remaining under treatment at date of last report, 218; since admitted, 186; discharged—cured or convalescent 56, relieved or improved 128, in *statu quo* 8, to the reception house 2; died, 11; remaining under treatment, 199. Out-patients' attendances—at the hospital, 1472, at South Brisbane branch dispensary 171. Convalescent Home: Remaining under treatment at date of last report, 13; since admitted, 37; discharged, 38; remaining under treatment, 12. The treasurer reported that the maintenance account at the last meeting showed a credit balance of £171 4s 10d. Received during the past three weeks, £457 16s 6d; expenditure as per schedule (for the month of May), £1287 12s 1d; debit balance, £858 10s 9d. A letter was received from the manager of the Queensland Trustees Limited, announcing that it had been decided to pay over to the hospital the legacy of £1000 under the will of the late Andrew Colville Reid. The returns of the annual ball in aid of the funds of the hospital were laid on the table. This showed a net result of £191 14s 1d. The house committee's report was adopted, and accounts were passed representing the expenditure for May, amounting to £1287 12s 1d.

Women's Hospital, Sydney.—At the monthly meeting of the board of directors of the Women's Hospital the honorary treasurer's financial statement showed a credit balance at the bank of £338 10s 3d. Cheques were drawn at the meeting for £201 18s 8d, leaving a credit balance of £136 11s 7d. A resolution was passed expressing sympathy with Professor Carlaw in his bereavement, the late Mrs. Carlaw having been a director of the institution. The matron's report for the month of May showed: Patients treated in-door—admitted 39, discharged 39, remaining in hospital 27 and 9 infants. Births—in-door 25, out-door 36, a total of 61. Ninety-seven patients were treated at the out-patients' department. In connection with the literary pageant ball a sum of £481 3s 1d was received through Mrs. T. H. Kelly and Miss Margaret Harris, who were thereupon unanimously elected life governors of the institution.

Hobart Hospital.—At the monthly meeting of the Hobart Hospital board of management last month the visiting committee's report stated that the surgical and medical work still continued heavy, and in some instances patients had to be refused admission until there was a bed available. During the month his

Worship the Mayor, as chairman of the local board of health, brought under notice of the committee the very great difficulty that was being experienced, through the absence of an infectious diseases hospital, in preventing the spread of the present epidemic of diphtheria, as it was impossible to secure the necessary isolation in the houses of majority of the patients. As the matter was most urgent, the chairman, after consultation with the senior house surgeon, Dr. Roberts, arranged for extra accommodation being provided as far as the limits of the hospital would permit. To meet this sudden increase of work it became necessary to engage the services of two trained nurses. The additional expense to the hospital caused through the admission of these cases will be defrayed by the local board of health. On the 5th instant the junior house surgeon, Dr. Wettenthal, tendered his resignation. The resignation was accepted, and applications were invited from medical practitioners to fill the vacancy. Alderman Reynolds, in moving the adoption of the report, said it was evident that something would have to be done in the way of adding to the hospital or making some other provision for infectious cases. In view of the recent purchase of a site for an infectious diseases hospital, it was likely that a place for the treatment of such complaints would be ready for patients at no very distant date, and so the complaint on that score would disappear. There would then be more room in the hospital for the treatment of general cases. Dr. Crowther said it was a question whether they were on the right track. The portion of the hospital for women was not large enough. He thought it a very bad advertisement for Hobart to put up an infectious diseases hospital on the tram route. Dr. Wolfhagen said it was always held to be best to get the infectious diseases hospital away from the general hospital. With 40 or 50 cases of scarlatina in the hospital they would have to discontinue the surgical practice for an indefinite time. The Mayor, on behalf of the local board of health, acknowledged with gratitude the help rendered by the chairman of the board and the medical staff. They readily responded to the appeal of the local board some weeks ago, when diphtheria cases occurred. Had it not been for the help afforded by the hospital authorities, the local board of health would have been in a very awkward fix. The cases had been treated at the General Hospital, special provision being made for them, for which the local board of health would have to pay. If those facts were known, it might lead many people who were now objecting to the site decided upon for the infectious diseases hospital to see the necessity which existed for provision being made for the treatment of such cases. According to the Public Health Act, it was imperative for the local authority to provide a site for such an institution. The finance committee reported that the fees collected during the month amounted to £118 11s 11d, and at May 31st the sum of £442 17s 2d remained on the books for collection. During the month of May 210 patients had been treated in the hospital. Of this number, 116 were discharged, and 8 died, leaving in the institution on June 1st 58 males and 40 females. The daily average number of occupied beds was 98, as compared with 75 during the month of May in 1906 and 1905. In the out-patients' department, 148 new cases were treated, casualties 16; total attendances, 570. The medical committee reported that during the month they had again had under consideration the suggested establishment of a dental department in connection with the hospital, and desired to report that at the present time they were unable to make any recommendations, but enquiries were being made as to the practice in similar

hospitals on the mainland, and upon receipt of the desired information the matter will be fully reported to the board.

Launceston General Hospital.—At the ordinary general meeting of the board of management held last month, the surgeon-superintendent reported that during May 222 in-patients and 168 new cases were treated. There were six deaths. The finance committee reported that during May £292 were received in fees, and £851 remained on the books for collection. The receipts for the month totalled £867, including £375 from the Government. The total was £3 in excess of the expenditure. The visiting committee recommended that plans and specifications for out-patients and dental departments be immediately obtained, and tenders be called for the work, the cost to be met by the surplus out of the maintenance account for the current year, and also that the sanction of the Government to the appropriation of a site in the hospital grounds for the erection of a building be obtained forthwith, as about £700 were available for the erection of a children's cottage hospital. The same committee recommended that the plans and specifications approved by the medical staff be accepted by the board, and that tenders be called for that work; also that steps be taken to secure the balance of funds required to meet its cost. From £500 to £700 would be needed. The report was adopted, and the matter of raising funds for the children's hospital was referred to the finance and visiting committees. Dr. Pardy asked if the appointment of Dr. Sweetnam as the assistant house surgeon had been confirmed by the Governor-in-Council. The chairman replied in the negative. Dr. Pardy said Dr. Sweetnam was then being illegally employed. The chairman said if there was any illegality it rested with the Government, to whom the appointment had been reported. If Dr. Pardy had patience, the Governor-in-Council would no doubt pronounce upon the subject. Dr. Pike gave notice of motion as follows:—"That rule 65 be altered so as to read: 'He shall not be concerned in any medical or surgical practice, or in any business other than that of the hospital'; and, further, that notice of such alteration be given to the surgeon-superintendent." Dr. Pardy gave notice of the following motion:—"That the opinion of the Attorney-General be obtained as to the meaning of rule 65 (a), whether it includes the administration of anaesthetics during the performance of operations by other medical men, and (b), whether it allows the performance of operations by the surgeon-superintendent outside the hospital, where he is called in by outside medical men, or where he is the principal medical man, and calls others in to assist him."

Dangar Cottage Hospital, Singleton, New South Wales.—This new hospital, which has just been completed on a site presented by Mr. A. A. Dangar, of Baroona, was officially opened last month by the Premier (Mr. J. H. Carruthers), in the presence of a large gathering. The president (Mr. A. Grainger) said that the building was well-equipped with the most modern improvements and conveniences. The original contract was for £4470 and extras, and additional improvements had brought the cost of the main building to £5918 19s. Some outbuildings had also been erected at a cost of about £300, extra land had been procured, and they had a lodge in course of construction which would cost between £400 and £500. Nearly all of these extras were done at the wish of Mr. A. A. Dangar, who said he would be responsible for their payment. The Premier, who was given a hearty reception, paid a compliment to the generosity of Mr. and Mrs. Dangar, and,

in conclusion, said he had very much pleasure in naming the institution the Dangar Cottage Hospital. Mr. A. A. Dangar said the creation of that hospital had been on his mind for a long time. He proposed to help them further in the matter, as from the start he was determined to pay for the whole of the building, and thus enable the committee to pass the whole of the subscribed money into an endowment fund, provided no subscriber objected to his or her money being dealt with in that way. Besides what he had already paid, he had now much pleasure in handing to the president a cheque, which when everything was cleared up would leave the hospital, he roughly calculated, with an endowment of some £5000. The president, in accepting the cheque, which was for £4156 2s 6d, said the gift was a princely one, because it meant that all that fine building, the outbuildings, and the land had been paid for by Mr. Dangar. A gold key was then presented by Mr. H. P. Conolly, the contractor, to the Premier, who unlocked the main door of the building and declared it open, cheers being given for Mr. and Mrs. Dangar. For some years it had been apparent to the committee of management that the work of this hospital could not much longer be carried on effectively in the old building, which had done duty for the past 45 years. The committee, however, could make no movement towards the erection of a new building for want of funds, until the public spirit and magnificent generosity of Mr. A. A. Dangar, backed up by the liberality of the citizens and a special vote from the Government of the State, admitted of the erection of the present buildings. The buildings were designed to provide accommodation for 20 patients, a matron, six nurses, and the usual domestic staff. The administrative block forms the central feature of the plan, and comprises the board-room, waiting-room, medical officer's room, matron's room, dispensary, linen-room, and a store for medical and surgical appliances, etc. Around it are grouped the male and female wards, the former for eight, and the latter for six patients. The wards are connected to ward day rooms by "cut-off" lobbies, also to bath-rooms and lavatories. Spacious verandah accommodation is provided on two sides of each ward. The operating theatre is placed in the centre of an inner quadrangle, equi-distant from all the wards, and connected thereto by wide covered ways. On either end of the two main wards, and at right angles to them, are two wings, each containing two private wards, bathroom and lavatories. They are located for convenient connection to the administrative block, the operating theatre, and the kitchen wing. To each wing is provided a wide verandah. At the rear, and connected by covered ways, are placed the isolation wards for male and female patients. Immediately behind the operating theatre, in the centre of the block, is placed the kitchen block and dining-room, with accommodation for store-rooms, pantries, larder, scullery, kitchen, and bedroom for the domestic staff of the hospital, together with a small back wing in which are the laundry and ironing room, fuel room and incinerator. Over the central administrative block, on the first floor, are the nurses' bedrooms, sitting-rooms, and bathrooms. The operating theatre, dispensary, and bathrooms are all equipped with the most up-to-date fittings in the way of sinks, lavatories, and special bed-pan sinks, all connected to both hot and cold water services, and fitted with pedal actuation taps and plugs. At the entrance to the hospital grounds is erected a lodge for the accommodation of the gardener. The building is designed to be in harmony with the general building scheme of the hospital. The roofs are covered with Marseilles tiles. The building was designed and carried out by Messrs. Spain & Cosh, architects, of Sydney.

PERSONAL ITEMS.

Sir Thomas Fitzgerald returned to Melbourne last month in the R.M.S. "Orontes," and resumed practice in Melbourne.

We regret to learn that Dr. John Spark, of Katoomba, New South Wales, is seriously ill.

At the annual meeting of the South Australian Branch of the British Medical Association held in Adelaide last month, Dr. J. H. Evans was elected president in succession to the retiring president (Dr. E. W. Morris).

Dr. C. Pelham Sapsford, late resident medical officer at the Warwick Hospital, Queensland, is leaving for Mareeba, Queensland, to act as *locum tenens* for Dr. Savage, for a couple of months.

Dr. H. Y. Stephens has removed from Casino, N.S.W., to Grafton, N.S.W., for six months.

Dr. W. Elworthy has left the Coast Hospital, Little Bay, Sydney, and has succeeded to Dr. C. B. Pym's practice at Penrith, N.S.W.

Dr. Sawrey, a graduate of the Melbourne University Medical School, who has been pursuing his studies in England and Scotland, is returning to Melbourne by the "Persic."

Dr. John Corbin, of South Australia, has resigned his position as a public vaccinator.

Dr. H. S. Maw has removed from Germanton, N.S.W., to Tumberumba, N.S.W.

Dr. W. M. Smith, of Dunedin, N.Z., has left on a trip to England, via Vancouver. He expects to return to New Zealand about the end of the year.

Dr. Benham, of Otago, N.Z., has been elected a Fellow of the Royal Society.

Dr. F. R. Riley has resigned his position as surgical tutor at the Otago University, N.Z.

Dr. Glendining, a young New Zealand doctor, was appointed physician to the Spanish Court. He took charge of the young Queen during her accouchement, assisted by an English nurse.

Dr. Ramage, of Pretoria, Transvaal, has arrived in New Zealand, where he intends to practice his profession.

Dr. A. Vavasour Elder, who has been acting as surgeon on the "Orontes," and doing L.T. work in the various States, is shortly returning to England. It is probable that he will return to Australia.

Dr. F. H. V. Voss was entertained at the Criterion Hotel, Rockhampton, Queensland, on June 13th. There was a large representative gathering of townsmen present on the occasion, which was called together for the purpose of wishing Dr. Voss a pleasant trip to the United Kingdom, a visit he is about to make on account of being somewhat out of health. Dr. Voss has been practising at Rockhampton for twenty years, and the people of the town and its neighbourhood trust that he will benefit by the trip and return fully restored to health.

Dr. E. De Marco has resigned his position as medical officer of the White Cliffs Hospital, N.S.W., and is about to take a twelve months' trip to Europe. Dr. De Marco's European address will be Pesaro, Italy.

Dr. James McLeod, of Hurstville, Sydney, was on July 5th presented by the members of the Loyal St. George Lodge (M.U.I.O.O.F.) with an illuminated address and medical bag in appreciation of his 15 years' connection with the lodge as medical officer.

Dr. T. P. McKell, formerly of Mulwarrie, W.A., has gone to Barraba, N.S.W.

Dr. Astles, of Perth, W.A., leaves in July on an extended trip to Europe.

Dr. C. Rygate, late of Brisbane, has joined Dr. Astles, and will conduct his practice during his absence.

Dr. T. B. Belgrave, of Shark's Bay, W.A., has removed to Mulwarrie, W.A.

Dr. Andrews, from Melbourne, has commenced practice in Perth, having joined with Dr. E. Paget Thurstan.

Dr. Amess has resigned his position as medical superintendent of the Melbourne Hospital in order to take up private practice.

The partnership practice carried on by Drs. Cameron and Page at Grafton, N.S.W., has been dissolved. Dr. A. B. Phillips has purchased the interest of Dr. Cameron and has entered into partnership with Dr. Page. Dr. Cameron leaves Grafton after a residence of 12 years, and intends residing in Brisbane.

Dr. C. B. Pym has commenced practice at his residence, 141 Elizabeth-street, Hyde Park, Sydney.

Dr. R. W. Hornabrook, of Adelaide, has left for London. He will be absent for 12 months.

Dr. Marshall has commenced practice at Cowell, South Australia.

Dr. Dean Bray was entertained at a dinner at Orange, N.S.W., recently, prior to his departure for England. Dr. Bray has been practising there for ten years.

MEDICAL APPOINTMENTS.

SOUTH AUSTRALIA.

The following appointments have been made by the Executive Council of the Adelaide Hospital:—

Honorary Physician, Dr. R. S. Rogers; Honorary Ophthalmic Surgeon, Dr. A. W. Hill; Honorary Assistant Surgeon, Dr. F. Magarey; Honorary Surgeon, Dr. A. M. Cudmore, F.R.C.S.

McCarthy, Martin, to be an Officer of Health, Port Augusta West.

VICTORIA.

Henderson, Dr. Mary Ankteell, to be appointed Junior Resident Surgeon at the Eye and Ear Hospital, Melbourne.

Holmes, Horace Hes, to be Certifying Medical Practitioner for the purposes of the Factories and Shops Acts.

Robertson, A. W. D., to be Assistant Demonstrator in Anatomy at the Melbourne University.

Smith, Julian, M.D., B.S., to be Honorary Demonstrator of Surgery at the Melbourne University.

The following gentlemen to be Officers of Health for the districts set opposite their names, viz.:—

Desailly, Julian Gilbert, M.B., Shire of Hampden, East Riding, *vice* Douglas Albert Robinson, L.R.C.P., resigned.

Lemon, Ferguson Augustus, M.B., Shire of Ballan, Central Riding, *vice* George Herbert Salter, M.B.C.S., deceased.

King, Henry Kirwan, M.B., M.S. (acting), Shire of Heidelberg, *vice* George Gordon Owen Phillips, L.R.C.P., resigned.

WESTERN AUSTRALIA.

Holland, J. J., to be Officer of Health, Kanowna, *vice* Dr. Joyce, resigned.

Nutting, P. H., to be Officer of Health for the Wagin District.

QUEENSLAND.

Blanshard, Dr., to be Health Officer, Killarney.

TASMANIA.

Aspinall, Jessie, M.B., Ch.M. (Syd.), to be Junior House Surgeon at Hobart Hospital.

Henry, Ellen Elizabeth, M.B. (Melb.), 1907, Ch.B. (Melb.), 1907. Walker, William James Alexander, M.B., Ch.B. (Glas.), 1897.

NEW ZEALAND.

Coughtrey, M., to be Surgeon to the Dunedin Gaol, *vice* the late Dr. Robert Burns.

Siedeberg, Emily H., to be Medical Attendant to the Girls' Industrial School, Caversham, *vice* the late Dr. Burns.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following gentlemen have been registered as Legally Qualified Medical Practitioners in their respective States, viz.—

NEW SOUTH WALES.

Campbell, John Stuart, M.B. (Syd.), 1907.
 Chapman, Herbert Owen, M.B., Ch.M. (Syd.), 1907.
 Ghorist, James Joseph, M.B., Ch.M. (Syd.), 1907.
 Harbison, David Thomas, F.R.C.S. (1901).
 James-Stephen, John, L.S.A. (Lond.), 1880, L. et L. M.D., R.C.P. (Irel.), 1888.
 Ormiston, Martha Isabel, M.B. (Syd.), 1907.
 Renwick, Charles Saunders, M.B., Ch.M. (Syd.), 1907.
 Simmers, Eustace Melvin, M.B., Bac. Surg. (Edin.), 1905.
 White, Wilfred James, M.B. (Syd.), 1907.

For Additional Registration.

Vernon, Geoffrey Hampden, Ch.M. (Syd.), 1907.
 Wade, Robert Blakeney, Ch.M. (Syd.), 1907.

VICTORIA.

Hagenauer, Henry Alexander, L.R.C.P. et S. (Edin.), 1903.
 Langdon, John Arthur, L.R.C.P. (Edin.), 1874, L.F.P.S. (Glas.), 1874.

SOUTH AUSTRALIA.

Galwey Foley, John Matthew, L.R.C.P. & S. (Irel.), 1907.

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

ARMSTRONG.—May 28th, 1907, at 36 College-street, Hyde Park, Sydney, the wife of George Armstrong—a daughter.
 HERRING.—July 4th, at High-street, West Maitland, N.S.W., the wife of Dr. E. Ken Herring—a son.
 LANE.—May 25th, at "Allhwa," Footscray, Melbourne, the wife of Dr. Ronald M. Lane—a daughter.
 LIDWILL.—June 19th, at "Lorne," Beecroft, Sydney, the wife of Mark C. Lidwill, M.D.—a daughter.
 SCOTT.—June 23rd, at Malvern, Victoria, to Dr. and Mrs. F. S. Scott—a son.
 HUMPHRY.—June 22nd, at Moleworth-street, Lismore, the wife of E. M. Humphry, M.B., Ch.M.—a daughter.
 O'LEARY.—June 23rd, at Glenelg, South Australia, the wife of Dr. A. P. Evelyn O'Leary—a daughter.
 VEECH.—June 3rd, at her residence, Riddell-street, Molong, N.S.W., the wife of Dr. M. Veech—a son.

MARRIAGES.

FORSTER—TEEVAN.—On the 3rd July, at All Saints, St. Kilda, Melbourne, by Rev. G. Merrick Long, Rev. John Forster, sub-warden St. Aidan's Clergy Training College, Ballarat, to Minnie Louise, youngest daughter of Dr. A. Teevan, of Clacton-on-Sea, Essex, England, late of Ballarat.
 LEDGER—KNAGGS.—May 27th, 1907, at All Saints' Church, Petersham, Sydney, by the Rev. F. T. Perkins, M.A., assisted by the Rev. R. E. Goddard, Clarence John, second son of Henry Allworth Ledger, of Croydon, Sydney, to Anna Helena Mary (Nan), second daughter of Samuel T. Knaggs, M.D., etc., of Liverpool-street, Sydney.
 MEARNS—O'SULLIVAN.—On June 15, at St. Joseph's Presbytery, Townsville, Queensland, by the Very Rev. Father Walsh, Gordon Mearns, third son of Dr. E. L. Mearns, Ingham, North Queensland, to Mary O'Sullivan, third daughter of Cornelius O'Sullivan, Lislevane, County Cork, Ireland.

DEATHS.

DAVIDSON.—April 30th, 1907, at Balham, near London, in his 81st year, Frederick Montgomerie Davenport Davidson, M.R.C.S.E., L.R.C.P., etc., eldest brother of W. M. Davidson, of "Cliveden," Oxley, Queensland.
 GRAY.—On the 10th July, at his residence, 13 Collins-street east, Melbourne, Andrew Sexton Gray, M.B.C.S. (Eng.), aged 81 years.
 LAMB.—June 17th, at Wentworth Falls, Robert Lamb, M.A., B.D., M.B., C.M., formerly Medical Superintendent, New Hebrides Mission, Ambrym, aged 44 years.
 VEECH.—June 18th, at Molong, N.S.W., Edward M., son of Michael and Clair Veech, aged 15 days.

LETTERS AND OTHER COMMUNICATIONS [RECEIVED FROM CORRESPONDENTS:—

Mr. G. T. Taylor, Hobart; Mr. L. Bruck, Sydney; Dr. J. McLeod, Hurstville; Dr. R. Steer Bowker, Sydney; Mr. Archd. Ollé, Sydney; Dr. A. B. Brockway, Brisbane; Dr. B. B. Ham, Brisbane; Dr. A. G. Turner, Brisbane; Dr. D. Hardie, Brisbane; Dr. E. S. Stokes, Sydney; Dr. H. Laurie, Melbourne.

BOOKS RECEIVED.

Modern Methods of Diagnosis in Urinary Surgery. By Edwd. Deansly, M.D., B.Sc. (Lond.), F.R.C.S. Number of pages, vi. + 97; 8vo. Price, 3s.
 Green's Encyclopedia and Dictionary of Medicine and Surgery. Vol. iv. Gum-resins to Intussusception. Edinburgh and London: William Green & Sons.
 Les Venins Les Animaux Venimeux et La Sérothérapie Antisérimeuse. Par A. Calmette, Directeur de l'Institut Pasteur de Lille. Avec 125 figures. Paris: 120 Boulevard, Saint Germain. 1907. 14s. Sydney: L. Bruck.
 A Manual of the Diagnosis and Treatment of the Diseases of the Eye. By Edward Jackson, M.D., Professor of Ophthalmology, University of Colorado. Second edition, revised, with 182 illustrations and 2 coloured.
 Calendar, University of the Cape of Good Hope, 1907-1908.
 Alcohol and the Human Body: An Introduction to the Study of the Subject. By Sir Victor Horsley, F.R.C.S., M.B., B.S. (Lond.), and Mary D. Sturge, M.D. (Lond.), with a chapter by Arthur Newsholme, M.D., F.R.C.P. Number of pages, xxv. + 370. London: Macmillan & Co., Ltd. Price, 5s net.
 The following two books have been received from Messrs. Baillière, Tindall & Cox, Sydney, and Mr. L. Bruck.
 1.—A Dictionary of Medical Diagnosis: A Treatise on the Signs and Symptoms observed in Diseased Conditions. By Hy. L. McKesack, M.D., M.R.C.P. Number of pages, xii. + 583, with 77 illustrations. Demy 8vo. Price, 10s 6d net.
 2.—Rational and Effective Treatment of Hip Disease. By F. B. Bennie, M.D., B.S. (Melb.). Number of pages, xii. + 108, with 9 illustrations and 9 plates. Demy 8vo. Price, 5s net.
 Diseases of the Lungs: A Practical Presentation of the Subject for Students and Practitioners of Medicine. By Robt. H. Babcock, M.D., with 12 coloured and 104 text illustrations. First edition. Number of pages, xix. + 809. New York and London: D. Appleton & Co. Sydney: Angus & Robertson. Price, 27s 6d.
 Journal and Proceedings of the Royal Society of New South Wales for 1906. Vol. xl.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor."

We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valerio Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. *The Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creosote." *The Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

AUSTRALASIAN MEDICAL GAZETTE

No. 311.

SYDNEY, AUGUST 20TH, 1907.

VOL. XXVI., No. 8.

THE CLASSIFICATION OF DISEASE AND CAUSES OF DEATH, FROM THE STAND-POINT OF THE STATISTICIAN.

By G. H. KNIBBE, F.R.S., F.R.A.S., &c., Commonwealth Statistician.

An Address given to the Victorian Branch of the British Medical Association.

(1) IN the address, which you have done me the honour of asking me to give, I propose to briefly refer, first of all, to the development of systems of nosological classification. I shall then pass on to consider more specifically the following matters, viz. :—

- (a) The essential features of nosology, from the standpoint of the statistician ;
- (b) The development of the Bertillon classification ;
- (c) Its public value ;
- (d) The difficulties which the statistician meets in dealing with death certificates.

I must apologise for all defects in the presentation of my theme ; its preparation has been at a time when my hands are more than fully occupied with the organisation both of a new department and of a better technique for the collection and publication of Australian statistical information.

(2) To attempt to outline the whole history of nosological classification is both out of the question within the limits of time at my disposal, and unnecessary. It will be sufficient to remind ourselves that the *scheme of any classification is determined by its specific aim*, as well as by the state of knowledge at the time of its preparation. For example, classification may be related to the causes of diseases ; to their aspect, from the standpoint of pathology ; it may, on the one hand, be founded on the macroscopic indications of morbid anatomy, or, on the other, upon histological characteristics ; or yet, again, its development may have regard to the requirements of clinic. So much was pointed out by Dr. Charles Powell White in his article in the *Lancet* of 1901. Dr. Arthur Newsholme remarks that a classification might be arranged according to symptoms, to causes, to intimate nature, to the tissues or systems of the body

affected, or to the parts as they lie anatomically, and so on. All this may be summed up by saying that, in general, a classification will vary according to its object.

(3) Dr. White also notes that progress in any scheme of classification presupposes not only accessions of knowledge, but also the elimination of defects arising from the bias of antiquity, and that of authority. A classification may further be affected by *new aspects* which present themselves within the field of knowledge, without necessarily involving a fundamental extension of its subject-matter. Even the mere art of developing an ideal classification involves, at least, the removal of all illogical and redundant terms, the making of all corresponding terms involve a corresponding sense, the inventing of new terms which shall correctly express new meanings while avoiding the alteration of the meanings of established words, and the selection of only those terms which best express condition. Of course, in a classification for general use, a large number of synonyms may have to be added. That these matters are of moment in the evolution of a classification of merit, is obvious. Clearly, however, such a work is for those who are proficient in the science of medicine, and is certainly not one for the statistician, as such. At the same time, he who is acquainted both with the science of medicine and the technique of statistics, will alone possess those dual qualifications which are requisite for the task of creating a good nomenclature from the standpoint of statistics. This is a point to which I shall recur.

(4) Very little consideration will make it evident that the flux of medical science may fundamentally change the theoretical view as to the nature of a disease, and thus profoundly affect a classification, which is grouped on the supposed nature of disease as a basis. And it is well to bear in mind that it is idle to hope that any classification, whether for statistical purposes or as a scientific nosology, will prove permanent.

As already said, to be of high value a statistical classification must be practically consistent with the state of scientific knowledge at the time of its development. But

on the other hand, from the very nature of the case, it cannot be in a state of perpetual flux. It cannot be quite up-to-date, because every change in a classification introduces difficulties, *e.g.*, in making comparisons between the facts collated under the amended form, and those collated under an earlier one. And yet diseases, the differentiation of which may become easy enough through the progress of medical science, may have originally been included under a single category. From a new point of view, therefore, it may be most desirable that they should not be confounded. Hence, notwithstanding that they were originally embraced under a single term, as soon as this term is clearly seen to be of too general a character, and to fail to discriminate between diseases, modification should be regarded as inevitable. The statistician's function in relation either to the statistics of morbidity or to those of causes of death, is simply to group the diseases or the causes of death, as the case may be, in some convenient way and under a series of sufficiently comprehensive categories, for the purpose of statistical comparisons.

(5) I have said that the attempt to give a complete history of nosological classification is out of the question. Nevertheless, the evolution of the present state of nosology may, with profit, be briefly referred to. The attempt to classify diseases on a natural-history plan was, so far as I can learn, first attempted in a comprehensive way by Francois Bossier de Lacroix, otherwise known as Sauvages (1706-1767), and the result was embodied in his *Nosologia Methodica*. This work was followed by that of William Cullen, of Edinburgh, *viz.*, that embodied in his *Synopsis Nosologiæ Methodicæ*, published in that city in the year 1785. It consisted of two royal octavo volumes. Cullen's was a classification of great, and it is said, unnecessary complexity. His main categories were four, *viz.* :—(i) Pyrexia, (ii) Neuroses, (iii) Cachexia, and (iv) Locales, and his work has constituted the ground-work of, or at least, has powerfully influenced many subsequent nosologies.

(6) Passing over the contributions and rapid development of the intervening period, it may be noted that as far back as July 9th, 1857, the Royal College of Physicians, London, resolved to appoint a committee to prepare a nomenclature of diseases, giving it full power to co-operate with other bodies. After commencing its work, the passing of the

Medical Act in 1858 caused a delay till 1863, when its task was again resumed. Not only was it very thoroughly discharged, but the nomenclatures in several languages, *viz.* Latin, French, German and Italian, were taken into account. An edition intended to be subject to decennial revision was published in 1869.

The object of the nomenclature is stated in the following terms, which I quote from the preface of the first edition :—

"For perfecting the statistical registration of diseases with a view to the discovery of statistical truths concerning their history, nature and phenomena, the want of a generally recognised nomenclature of diseases has long been felt as an indispensable condition.

"The advantages accruing from accurate statistics of disease are likely to be the greater and the surer in proportion as the field of investigation is the wider. *The most instructive sanitary statistics would be those which related to the whole of the inhabited portions of the globe.*

"For the registration of such statistical facts it is clearly requisite that there should be a uniform nomenclature of diseases, co-extensive with the area of investigation; and taking the largest area, the universal globe, the nomenclature would need to be one that can be understood and used by the educated people of all nations.

"Among the great ends of such a uniform nomenclature must be reckoned that of fixing definitely, for all places, the things about which medical observation is exercised, and of forming a steady basis upon which medical experience may be safely built.

"Another main use of the statistical registration of diseases on a wide scale, is that it must tend to throw light upon the causes of disease, many of which causes, when duly recognised, may be capable of prevention, removal or diminution.

"When a general and uniform nomenclature of disease has once been carefully framed, when we are sure that medical observation is occupying itself everywhere with the self-same diseases, the value of statistical tables becomes very high, as representing the course of events in disease under various circumstances of time, place, season, climate, manners and customs, age, sex, race, and treatment."

(7) It was recognised that the general, common, or standard nomenclature "could not be imposed upon every nation of people as its own proper nomenclature, not only because it would be generally unintelligible, but also because it would embarrass those by whom returns must necessarily be made." But it was also seen to be essential that what may be called "the national nomenclature" should be readily convertible into "the standard nomenclature." In the classification issued for all countries where the English language was in common use, the corresponding Latin name was given for each name, since Latin was the language of ancient science, and was presumably the fittest language for a universal nomenclature. The

equivalent terms in three modern languages, richest in learning and medical literature, viz., French, German and Italian, were also given, and it was hoped that, in this way, the foundation of a nomenclature of diseases for any language extant on the earth had been laid. The work, however, was not without some limitations. It was thought desirable to deviate as little as possible from the terms employed by the Registrar-General of England, the reason being that his set plans and forms of returns, which had been followed for 30 years, would have to be remodelled if any great change were made. The effect of the remodelling also would be that comparisons of future with past statistics would become perplexing or impossible, and to that extent the practical advantages of what otherwise would be a desirable classification would be nullified.

(8) The revision of this first nomenclature began to be considered in October, 1880. Primarily, a committee was nominated by the President of the Royal College of Physicians; other distinguished authorities then consented to assist; and finally, a number of sub-committees were appointed to consider in detail the arrangement of local diseases. The special sub-committees dealt with diseases of the nervous, circulatory, absorbent and digestive, and urinary systems, with mental diseases, with diseases of the eye, ear, skin, teeth, bones, of the female generative organs, with poisons, with injuries and operations, with parasites, with morbid growths, syphilis, and tubercle. The translation of the nomenclature into Latin, French, German and Italian was also undertaken at the same time.

(9) In 1892 a third edition was commenced, the general scheme of arrangement of work being practically uniform with the last. Dr. Tatham, the present superintendent of statistics in the General Register Office, Somerset House, London, the recognised English authority on nosological classification, became, on this occasion, a member of a special sub-committee. Some idea of the thoroughness with which the work of nosological classification was undertaken in this last revision is furnished by the fact that no less than 22 sub-committees were appointed, and dealt with the following subjects:—(i) Diseases of the nervous, (ii) circulatory, (iii) respiratory, (iv) digestive, (v) lymphatic and (vi) urinary systems; diseases of the (vii) eye, (viii) ear, (ix) nose, mouth and throat, (x) teeth, (xi)

connective tissue and skin; (xii) diseases of the male and (xiii) female organs of generation, (xiv) organs of locomotion; (xv) of the breast; and also (xvi) in connection with injuries, (xvii) malformations, (xviii) tumours and new growths, (xix) surgical operations, (xx) poisons, (xxi) animal and (xxii) vegetable parasites.

The comprehensive character of this classification suggested the desirability of utilising it in translating the classification of the International Institute of Statistics into English. This was done.

(10) I may now refer briefly to the history of classification in Continental Europe and America. In 1853 the Statistical Congress of Brussels affirmed, upon the proposition of Dr. Achilles Guillard, the desirability of formulating a universal nomenclature of causes of death. Dr. Marc d'Espine, of Geneva, and Dr. William Farr, the able English statist, each submitted a project, namely, in 1855. Their methods were by no means identical, however, and a committee was appointed to discuss the whole matter. The result of its labours was translated into English by Farr, into Italian by Bertini, into German by Virchow, and into Swedish by Berg.

(11) Nearly all the English nomenclatures in actual use are said to be more or less directly derived from that of Farr—that is to say, they class diseases as far as possible according to anatomical location rather than according to their nature. The object of this is to avoid that confusion which otherwise would arise through the modifications demanded by the progress of science. But, it is remarked by the Continental authorities on classification, that in the actual state of science there is no hope of attaining a definite grouping of diseases. "What," they say, "is now the significance of the terms enthetic, diethic, diathetic diseases, etc., which Farr proposed in 1855?" Nevertheless, the diseases—the grouping together of which now appears so strange—have individually preserved their definite meanings. The groupings which may at one time appear most natural, may at a later date have lost their *raison d'être*, and, consequently, should not be an essential of medical statistics if the work is to endure. It is from considerations of this character that the categories are arranged according to their anatomical location, rather than according to their nature.

(12) In October, 1891, at Vienna, the International Institute of Statistics reviewed

a number of classifications, viz., that of Farr; the Index of the Statistical Congress of 1855; that of Brussels; the 1865 Index of Paris, first amended in 1874, and then again in 1880; the Index of Virchow; that of the Kingdom of Italy; and several minor ones. This revision, which we may call the third, was translated in 1894 in the United States, and was strongly approved there in October, 1897. Even before that date it had been put into practical use in Mexico and in the province of Quebec, in Canada. In the month last mentioned, the chiefs of various demographic statistical departments, and of several bureaux of hygiene, of Canada, the United States, and Mexico, resolved in conference that the Bertillon classification of Causes of Death should be adopted by all the registrars of vital statistics in these countries as soon as the change from the systems then in use could be conveniently made. Mexico printed a translation in Spanish. In September, 1898, at Ottawa, Canada, it was decided by the American Public Health Association to cordially co-operate in the 1900 revision of the Bertillon classification.

(13) This revision was made by the authority of the committee appointed in August, 1900, and may be called the fourth nomenclature. It is used in the following countries, viz.:—Algeria, Argentine Republic, Austria, Belgium, Brazil, Canada, Chile, Cuba, France, Germany, Japan, Mexico, Netherlands, Portugal, Russia, Salvador, Spain, Switzerland, United States, etc.

In all, about twenty countries had adopted the Bertillon Index in 1903, representing a population of about 121,000,000. That represented now is probably not less than 150,000,000. Hence, this classification affords at present quite a unique field for comparison, and is moving rapidly towards the realisation of the hope of one of the early committees of the Royal College of Physicians of London, that a universal nomenclature will be created.

(14) I shall now briefly refer to the evolution of official statistical classification in Australia. Mr. H. H. Hayter, the late eminent Statist of Victoria, writing in 1887, states that the "Causes of death in England, prior to 1881, and in Victoria and the other Australian colonies, until quite recently, were arranged in classes and orders" on the Farr-d'Espine scheme. In England, Dr. Farr's classification was used for general purposes, and the deaths for all England were all classified according

to the nomenclature of the Royal College of Physicians. About 1862, Mr. Hayter had compiled a nosological index to be used in connection with Dr. Farr's classification. This latter, however, became obsolete on the adoption of a new classification in 1886 by Dr. Ogle, Dr. Farr's successor at the General Register Office, London. To meet the situation, Mr. Hayter issued a new "Nosological Index or guide to the classification and tabulation of the various causes of death." The main categories were eight in number, viz.:—(i) Zymotic diseases, (ii) parasitic diseases, (iii) dietetic diseases, (iv) constitutional diseases, (v) developmental diseases, (vi) local diseases, (vii) violent deaths, (viii) ill-defined and unspecified. This has been largely used in Australia, thanks to Mr. Hayter's activity and high statistical reputation—[See *Victorian Year Book*, 1886-7, pp. 303-310, and pp. 850-852].

(15) In New South Wales the Farr-Ogle system was abandoned in 1904, and that of the Registrar-General of England for 1901 was adopted. The new system has five main categories, or rather groupings, viz.:—(a) General diseases, (b) diseases of particular organs, (c) other specified diseases, (d) causes ill-defined or unspecified, (e) violent deaths. It is expressly stated that these are not to be regarded as classified groupings—[*Sixty-Eighth Report Reg.-Gen., Eng., Wales*, 1905]. The second category had 12 sub-divisions, viz.:—Diseases of (i) nervous system, (ii) organs of special sense, (iii) heart, (iv) blood vessels, (v) respiratory system, (vi) digestive system, (vii) lymphatic system and ductless glands, (viii) urinary system, (ix) generative system, (x) pregnancy and child-birth, (xi) locomotor system, (xii) the skin.

(16) It is evident to anyone who will impartially consider the question that the Farr-Ogle nosological index in use in Australia could not be regarded as possessing the advantages of the index of the International Institute of Statistics. I decided, therefore, to recommend to the Australian Conference of Statisticians, which met in November and December last, the adoption of the latter. After some discussion, that recommendation was accepted. While the conference was pending, however, the convener of the statistical committee for the Australasian Medical Congress of 1908, Dr. W. P. Norris, suggested that the question of the adoption of the Bertillon Index was worthy of serious examination. I am glad to say that the approval

of the statisticians of Australia and New Zealand as to its use was unanimous. It was then that I undertook the translation of the work in the Commonwealth Bureau.

(17) The nosological system of the International Institute of Statistics, or the Bertillon system, as it is usually called, contains 14 categories, and differs considerably from the Farr-Ogle Index. The categories are as follow :—

(i)	62 subdivisions—General diseases.
(ii)	18 " Diseases of the nervous system and organs of special sense.
(iii)	10 " Diseases of the circulatory system.
(iv)	12 " Diseases of the respiratory system.
(v)	20 " Diseases of the digestive system.
(vi)	15 " Diseases of the genito-urinary system and adnexa.
(vii)	8 " Puerperal condition.
(viii)	4 " Diseases of the skin and cellular tissue.
(ix)	4 " Diseases of the organs of locomotion.
(x)	1 " Malformation.
(xi)	3 " Infancy.
(xii)	1 " Old age.
(xiii)	21 " Violence.
(xiv)	3 " Ill-defined diseases.

The Arabic numerals represent the number of the subdivisions. Two classifications are given—one for the compilation of statistics of morbidity, the other for causes of death. Under each sub-heading, and to guard against error, is stated what the heading includes. Diseases liable to be wrongly included are specifically mentioned. "Frequent complications" are also specially indicated. Further than this, a scheme is developed by means of which a decision may be reached where there are two causes of death given, as to which to adopt. I shall refer more fully to this later. Taking everything into account, it will be seen that the Index of the International Institute of Statistics not only possesses the advantages of wide recognition, but also of practical convenience.

(18) I now pass on to indicate broadly what, from the standpoint of the statistician, ought to be the essential features of a nosological index. Assuming its scientific accuracy, these, I think, may be summed up as follows :—

(i) It should be as complete as possible as a universal catalogue of diseases.

(ii) In so far as it is incomplete, the proper position for any disease not already included should be readily determinable.

(iii) It should contain safeguards against inclusion in a wrong category, through mere similarity of nomenclature.

(iv) Where more than one cause of death is assigned, the principle of selection should be determined as to eliminate, as far as possible, the idiosyncrasies of the tabulator.

These requirements govern the mode of arranging a nosological classification for statistical purposes. From the classification point of view everything should obviously be set out under comprehensive categories, which, from their character, are not liable to modification through changing views as to the nature of disease, and which indeed avoid this liability by following some suitable principle (*e.g.*, anatomical position).

(19) Secondly, under these great categories should be ranged the various subdivisions, and again under the subdivisions, the individual diseases. For example, under the category "Diseases of the Respiratory System," the particular disease "Acute Laryngitis" would be entered under "Diseases of the Larynx" (88).

Thirdly, it is clearly desirable that subdivisions should indicate the individual diseases likely to be wrongly entered. Thus since "Tubercular Laryngitis" is preferably entered under "Tuberculosis of the Larynx" (26), under the category of "General Diseases," obviously it might easily be entered as a disease of the "Respiratory System." Hence, under "Diseases of the Larynx" (88), it is proper that "Tubercular Laryngitis" (26) should be indicated as "not included."

Fourthly, a comprehensive alphabetical index is needed, with the classification number opposite to each disease for convenience of reference; and lastly, the tabulator needs some guide so as to make his decisions definite as to which disease, among several mentioned, is to be selected as indicating the cause of death. I shall refer to this more fully later.

(20) A study of the Bertillon classification will disclose the fact that it possesses the qualifications demanded of a statistical nosology. It was developed by men who possessed both medical and statistical knowledge. It ranges the multitude of diseases under 14 categories, with a total of 179 subdivisions. It gives an abridgment whereby these subdivisions, if required, are reduced to 35. It deals with the differentia between statistics of morbidity and statistics of the causes of death. It provides all necessary warnings by means of which erroneous entries may be

avoided. It calls attention to the nature of the most frequent complications, it furnishes a comprehensive index, and lastly, to ensure uniformity in the scheme of tabulation, it contains expert directions based on the general theory of disease. In addition, it has by far the widest acceptance of any classification.

(21) I may now say a word on its public value. More universal, and more easy to use than any other scheme, it secures the greatest possible field for comparative studies. With its aid, statistics of causes of death are unified as under no other classification. This constitutes its greatest merit, and I venture to think a sufficient reason for its universal adoption for the purpose of statistics.

(22) We may now proceed to refer to the kind of difficulties which present themselves to the statistician, because it is here that the medical profession can render such great and important service. And first I shall refer to the English recommendations to those who furnish the certificates of death or diseases made by the expert of the Registrar-General's office, England. I take the liberty of slightly re-stating the form in which they are given. The suggestions are as follows, viz. :—

(i) That a common nomenclature be adopted.

(ii) That all vague terms be avoided (*e.g.*, “cachexia,” “decline,” “tabes,” etc.)

(iii) That the probable origin of the cause of death, and the organ affected be indicated, as in such cases, for example, as “hemorrhage.”

(iv) That the distinction—as say in tetanus—between idiopathic and traumatic cases should be indicated, the cause and nature of the injury being given, where the disease is traumatic.

(v) That the causes of death should be written on the certificate in the order of their appearance, and not in that of their presumed importance.

(vi) That the mere indication of some prominent symptom as the cause of death should be recognised as not quite satisfactory. The disease to which the symptom is due should be stated whenever possible. (For example, if dropsy be the alleged cause of death, it should be referred to the heart disease, or renal disease, etc., of which it was the consequence).

(vii) That when the immediate cause of death was dependent upon some general condition (strumous, syphilitic, rachitic, etc.), the more remote cause should be stated as well as the immediate.

(viii) That the cause of deaths from any form of continued fever, the kind of fever should be given in terms of the adopted nomenclature, indefinite terms, such as brain fever, febrile attack, hectic fever, low fever, miliary fever, etc., being avoided.

(ix) In general, ambiguous terms should be avoided, such, for example, as “typhoid-pneumonia,” which may mean asthenic pneumonia with typhoid symptoms, or enteric fever with secondary pneumonia.

(x) The use of terms such as infantile remittent fever for enteric fever in children should be avoided.

(xi) When a cause of death has been verified by a post-mortem, the letters P.M. should be added.

(xii) When death follows within one month of childbirth, the fact should be notified, although the childbirth had apparently no connection with the cause of death.

(xiii) The duration of primary and secondary diseases should always indicate the interval between the appearance of well-defined symptoms and death.

(xiv) Small-pox, scarlet fever, measles, and similar febrile diseases should date from the rigors and first symptoms, not from appearance of the eruption.

(xv) Ague, epilepsy, angina pectoris, and other paroxysmal maladies should be dated from the first attack; the duration of last attack should also be added.

(xvi) The duration should be stated in minutes or hours, as the case requires, when the disease is fatal in less than forty-eight hours; in days when the disease is above this and less than fifty days duration; and in months or years where disease is of longer duration.

(xvii) In cases of operation the return should show the primary disease or injury; kind of operation; the secondary disease (*e.g.*, erysipelas, purulent deposits, etc.); and the duration of the primary disease and also of the secondary disease should each be reckoned up to the moment of death.

(23) The scheme just referred to could be thus represented :—

“Scarlet fever, thirty days; anasarca, seven days,” implies that the earliest symptoms of scarlet fever occurred thirty days, and those of anasarca occurred seven days, before death.

“Epilepsy, five years; last fit, six hours,” implies that the first epileptic fit occurred five

years back, while the fatal fit was of six hours' duration.

"Alcoholism ? ; delirium tremens, six days," implies that for an unknown period deceased had been addicted to excessive use of alcohol, and had suffered delirium tremens for six days before death.

"Femoral hernia, three years ; strangulated, five days ; operation, forty-eight hours ; peritonitis, forty-two hours," implies that the hernia was of three years' standing, it was strangulated five days before death, the operation was forty-eight hours before death, and peritonitis had lasted forty-two hours. Certificates which followed these indications would certainly facilitate the work of the tabulator.

(24) I have stated that the Bertillon Index gives directions, which will greatly facilitate the work of the tabulator. Sometimes the solution is directly indicated by the certificate. For example, where rheumatic-pleurisy, or rheumatism followed by pleurisy is given, the entry would be under (47) acute rheumatism. The following general rules are given :—

(i) If one of two diseases simultaneously given is an immediate and frequent complication of the other, the entry is to be made under the head of the primary diseases, *e.g.*—(a) Infantile diarrhoea and convulsions would be classed under the former diseases. (b) Scarlet fever and nephritis would be classed under the former diseases.

(ii) Where not immediately obvious, the death should be classed under the more dangerous disease, *e.g.*, organic heart disease and coryza. Though coryza may bring about death of the cardiac patient, the former is obviously the more suitable cause to enter.

(iii) Where, in two assigned causes, one is a transmissible disease, death should be ascribed to it, because of the importance of statistics of infectious diseases from the standpoint of hygiene. This, of course, is a purely empirical rule—*e.g.*, biliary calculi and typhoid fever would be entered under typhoid fever.

(iv) Where a disease of rapid development is indicated together with one of slow development, the death should be ascribed to the former—*e.g.*, mental disease, acute rheumatism will be entered under acute rheumatism.

(v) Death attributed to disease and external violence in the certificate should be assigned to the latter cause—*e.g.*, locomotor ataxia, accidental submersion.

(vi) The diagnosis which best characterises the case must sometimes be taken—*e.g.*, lead-poisoning and pulmonary emphysema would be entered under the former.

(vii) A precise diagnosis is to be preferred to a vague one.

(25) In order to ensure uniformity of decision, tables of double entry are constructed for two causes of death, which are used as follows :—

Of two assigned causes, one will be a disease with a lower tabulation number ; enter the table ranged under this lower number. If the number corresponding to the other disease (*i.e.*, with the higher tabulation number) be in heavy type, record it as the cause of death, otherwise record under the disease with the lower number. The double entry table furnishes a number of general observations for guidance, to which reference cannot be made in the time at my disposal. These may be easily followed, however.

(26) I now come to the question of the difficulties which beset the tabulation. Certified causes of death are in some cases nothing more than mere indications of the mode of death, *e.g.*, "cardiac syncope." One finds cited as causes of death "abdominal disease," "atrophy," "blood-poisoning," "cachexia," "convulsions," "debility," "dropsy," "hæmorrhage," "inanition," etc., and even teething.

The logical structure of the mind that furnishes "teething" as a cause of death is not profoundly different from one that would enter "life" as a cause of death. In cases like these, the tabulator has to do the best he can on any general indications given. Obvious mistakes are more common than would probably be supposed. A card that comes to hand just as I write gives as the cause of death for a man of 74 years of age :—

"Primary—Stricture of the uterus (obviously urethra).

"Secondary—Perinæal abscess, uræmia."

This last-mentioned case illustrates what I may call the outstanding difficulty to the tabulator. Stricture of the urethra, if taken as the cause of death, would be entered under "other diseases of the urethra" (124), under which also one finds "urinary toxæmia" and "urinæmia." If, however, one follows Bertillon's double entry rule, the assigned causes are "uræmia" and "stricture of the urethra," viz., (120) and (124). The rule requires that the entry be under "Bright's disease" (120), which includes "uræmia." I assume,

however, that (124) would be the more correct entry.

(27) Improvement in the statistical tabulation of causes of death depends, as you will readily see, greatly upon the assistance which the medical practitioners can render. This assistance can be rendered in several ways, viz. :—

(i) By disseminating information as to statistical technique in connection with disease and death.

(ii) By helping to secure careful certification.

(iii) By pointing out omissions in the nomenclature.

In regard to the first it will be a great benefit if you can influence the editors of your various medical journals to give pointed attention to the subject, and induce the press to render its powerful aid.

(28) Regarding the question of care in certification, may I point out one or two matters which force themselves on our attention. It is well known to registrars of deaths and to statisticians that some medical practitioners would seem to acquire what may be called a habit in regard to particular causes of death. Thus, in cases of death from respiratory diseases, one medical practitioner will tend to assign pneumonia as the cause of death, another will tend to assign bronchitis, and so on.

All this implies that ultimately the results must necessarily depend upon the way in which the physician discharges his statistical duty in certification. Occasionally there may be some difficulty about assigning, without reservation, what are believed to be the real causes of death. It was a recommendation of the House of Commons Committee of 1893 on death-certification that medical practitioners should be required to send certificates of death to the registrar, instead of handing them to the representatives of the deceased. This is a matter which, while it affects the accuracy of statistics of death, concerns rather the medical profession and registrars than the statistician.

(29) In the course of practice, diseases will present themselves which have not been recorded in the nomenclature. It would greatly help matters if these were notified to the Commonwealth Statistician, and a suggestion made as to their proper place in the classification. I instance a few which have actually presented themselves on certificates in Australia—(i) Dengue fever; (ii) filariasis; (iii)

sprue (or psilosis); (iv) granuloma of the pudenda; (v) yaws (or frambœsia); (vi) accidental overlaying of infants.

(30) Finally, it may be noticed that there are often intrinsic difficulties in assigning death to a single cause. In reality, how is the measure of the contribution of each cause to be assigned? One certificate I note reads as follows :—

{ "Morbus cordis."
"Chronic nephritis, chronic hepatitis,
chronic splenitis."

By the nosological double-entry table, this would be entered under (79), i.e., heart disease. If, however, Morbus cordis be regarded as somewhat vague, and the table is entered to decide between chronic nephritis (120) and chronic hepatitis (112), it must be entered under the latter.

(31) Another type of difficulty which presents itself is found in the fact that disease is sometimes indefinitely stated. In the classification, "cardiac disease" is entered under "organic diseases of the heart" (79); but "heart-failure" and "paralysis of the heart" are found under "unspecified or ill-defined causes of death" (179); and "syncope, followed by death" is entered under "sudden death" (178). Definiteness in the certification would obviate the necessity for the statistician having to decide doubtful matters of this sort. As an illustration of the type of certificate to be dealt with, I may give a list of causes of death frequently found in Australian certificates :—

Cardiac syncope, cardiac failure, heart failure, morbus cordis and syncope, heart disease and syncope, pulmonary disease and cardiac failure, hæmorrhage (without epithet), and so on.

I quote one other certificate—*verbatim et literatim*—to show what the tabulator has sometimes to deal with—"Miscarriage at 5½ months (male)." This was the certificate for a male child whose death was attributable, of course, to premature birth.

(32) A fairly complete alphabetical index is given on pp. 50-77, of the Bertillon index issued. A revision will take place in 1910, when I hope, with the aid of the suggestions of the medical profession of Australia, to have included in their proper place, all diseases known to us here. In the meantime, will it not be possible to get each practitioner to draft his certificate in the light of the index already issued, so that the aggregations made up in the Statistical Bureau shall conform to

the proper categories indicated by the medical profession itself.

(33) In concluding, I may be permitted to add a word or two regarding certain views concerning the main object of classification, the acceptance of which, though *prima facie* apparently satisfactory, would appear to demand caution. A classification of causes of death must necessarily be ætiological, but in what sense? Suppose we wish to conduct an enquiry into the consequences of chronic alcoholism, or of some other dietetic abuse. The statistics of morbidity must necessarily be used in appraising the effects and their gravity. Parts of the evidence would be the frequency with which death occurred from the disease or diseases directly attributable to the abuse. For this specific purpose, therefore, we would have, in the classification of causes of death, to concern ourselves solely with alcoholism.

(34) The practical case is rarely as simple as this. If the organism be merely impaired, and through this impairment succumb to some disease from which otherwise it would have recovered, are we to attribute the death to alcoholism (or other abuse), or to the disease? Obviously to the disease, but this instance reveals the fact that the ascription to a single cause is essentially empirical. It is clearly undesirable that the classification of causes of death should be governed by any ætiological view which, from its nature, would be liable to vary from one country to another, or with the prevalence of particular opinions, either lay or professional. The consequences of self-induced diseases—alcoholism for example—must be specifically investigated, and, of course, with the aid of statistical results, rather than be determined on a statistics made to conform to the required object. Cirrhosis of the liver may be a consequence of alcoholism. Alcoholic impairment of the whole system may perhaps be followed by a fatal attack of nephritis, that is to say, an actual death may be due either to cirrhosis, or, say, to nephritis. The Bertillon classification proposes that where the first disease is clearly indicated, it shall be recorded under "cirrhosis of the liver" (112), or where the second under "Bright's disease" (120), not under acute and chronic alcoholism (56). Hence, it is limited from the point of view of one who wishes to study the abuse of alcohol.

From one standpoint it would seem desirable to know what statistical evidence there is of the number of deaths attributable

directly and indirectly to a specific cause, but this would require that the whole record of deaths should be examined and tabulated not once, but once for *each* of such causes.

(35) It is pointed out by Mr. Fenton that many alleged causes of death seem inadequate, and, further, that accurate information as to causes of death of young infants and also of old people is very desirable. With this I agree. A large percentage of the deaths in one State are ascribed to "Syncope" in the case of persons over 65 years of age. Is such a certificate one that truly indicates the nature of the final catastrophe? How the life career is closed in early infancy and late in life are obviously both important.

(36) There seems to be two practical results to be attained, viz.:—

(i) To get each member of the medical profession to sufficiently appreciate the value of careful certification, and

(ii) To place well-considered views before the International Conference of Statisticians for the improvement of the classification.

To this end a special committee might be appointed, and if I can render any service I shall be only too glad to act as one of its members.

THE TREATMENT OF OCCIPITO-POSTERIOR PRESENTATIONS.

By David Hardie, M.D., Brisbane; Consulting Physician, Lady Bowen Lying-in Hospital; Surgeon, Lady Lamington Hospital for Women.

OCCIPITO-POSTERIOR presentations occur in about one-third of all vertex presentations, and of these 85 per cent. lie with the occiput to the right and 15 per cent. to the left. In nearly all such cases, rotation forwards takes place sooner or later before the termination of labour, but it is estimated that in from 1·9 to 4 per cent. this does not occur. Apart from the danger of severe rupture of the perinæum in the latter cases, the prolongation of labour in all occipito-posterior presentations, amounting to at least three or four hours, is a matter of great importance to the mother and child, as well as sometimes of concern to the accoucheur.

Various expedients have been resorted to to effect rotation, but I shall consider only those that have been found by me most useful in practice.

Should the position be ascertained at the commencement of labour, before the membranes have ruptured, rotation by external manipula-

TO ILLUSTRATE

DR. D. HARDIE'S PAPER ON "THE TREATMENT OF OCCIPITO-POSTERIOR PRESENTATIONS."

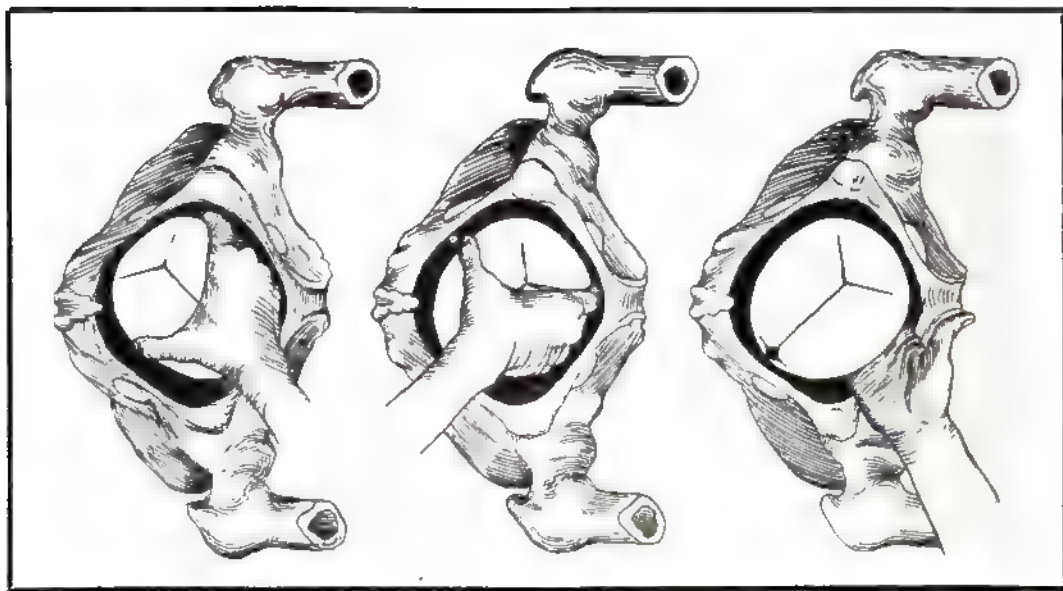


FIG. 1.

Showing position of hand (1) before rotation, (2) after rotation, and (3) ready for lower blade of forceps in right occipito-posterior presentations.

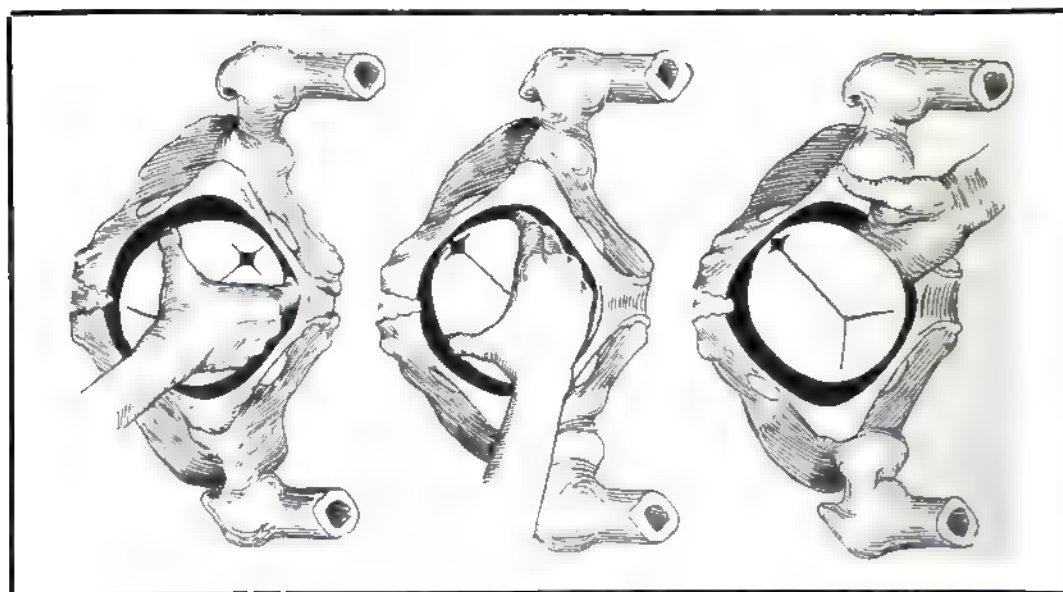


FIG. 2.

Showing position of right hand (1) before rotation, (2) after rotation, and (3) ready for upper blade of forceps in left occipito-posterior presentations.

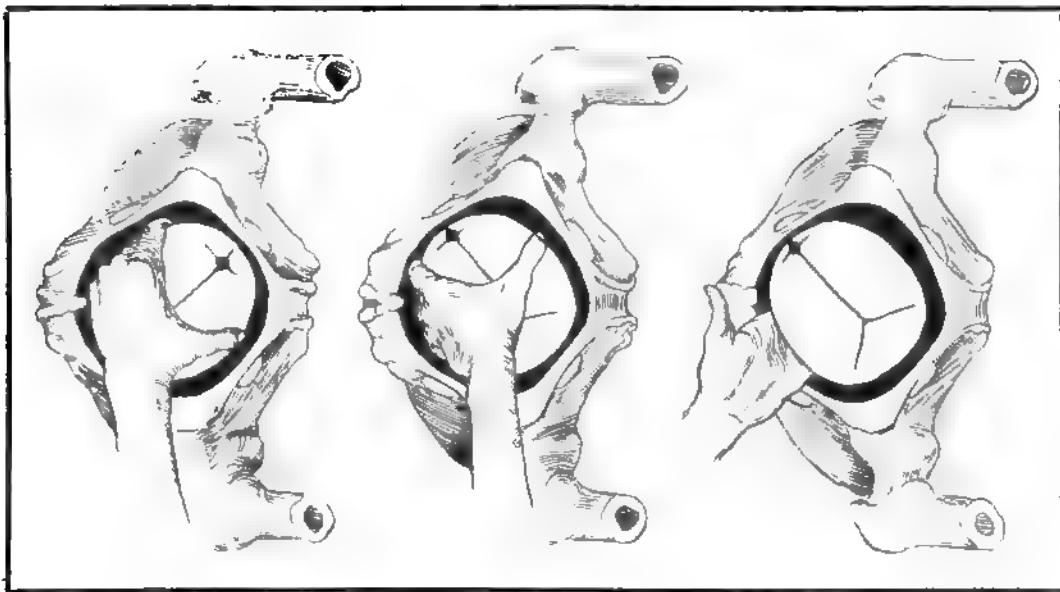


FIG. 3.

Showing position of left hand (1) before rotation, (2) after rotation, and (3) ready for lower blade of forceps in left occipito-posterior presentations.

tion is an ideal method, and may be successfully accomplished, but as an error in diagnosis may be made, and the patient is seldom seen in time, the practice of this method will necessarily be limited.

When the head has entered the brim—the membranes being entire—the only thing that may be done is to place the patient under the most favourable circumstances for natural rotation to take place. Bearing in mind that the centre of gravity of a child, as was first pointed out by Mathews Duncan, lies towards its back, the latter, when the patient is in a recumbent position, tends to gravitate round the axis of the child to a lower plane. Assuming that the occiput enters the pelvis in the posterior part of the right oblique diameter, the occiput has a tendency to occupy the transverse diameter, if the patient lies on her right side. Hence when the occiput is to the right, she should lie on her right side, and *vice versa*. One cannot, of course, expect much from attention to this point, but I have apparently seen it do good, and, moreover, it has this decided advantage, that as the occiput generally lies to the right, the patient appreciates the change of position. Beyond this nothing whatever should be done to assist rotation until

labour has well advanced into the second stage. The time then comes for active inter-

ference, if need be. Before taking any step in this direction it is necessary to remember what is universally recognised by obstetricians, namely, that the part of the head that is lowest in the pelvis during labour is the part that tends to rotate towards the symphysis pubis. It follows that, if, in occipito-posterior presentations, the posterior fontanelle is within easy reach, the chances are that, in course of time, the occiput will rotate to the front. Similarly, if the anterior fontanelle is the most prominent part, rotation forwards of the occiput is much less likely to take place. In the former case the occiput bears upon a resisting pelvic floor, and is so pushed forwards; in the latter case the occiput is not sufficiently low to be acted upon in this way. Our first object in treatment, then, is to increase the flexion of the head, so that the sinciput may recede and the occiput may occupy a lower plane in the pelvis, or, in other words, so that the sub-occipito-bregmatic, instead of the occipito-frontal diameter, may pass through the pelvis.

Having ascertained the position of the head, the patient is placed on that side towards which the occiput is directed, if this has not already been done. Flexion is then induced by pressing one or two fingers steadily against the sinciput. The pressure

is directed, not only upwards and slightly backwards, but with an inclination to one side or the other as the case may be, with the object of both flexing and rotating the head at the same time. I find it best to begin this, not during a uterine contraction, but between the pains, because of the greater facility with which the position of the head can be altered. Keeping the head in its altered position until the pain returns, steady pressure is kept up during the uterine contraction over the sinciput, with the object of preventing the head from slipping back to its original position. This cannot as a rule be done at first, but by repeating the procedure when the pain passes away, and keeping up counter pressure during the contraction, it will often be found in the end that our efforts are successful.

Time is, however, an important factor to all concerned, and if after a reasonable time—certainly not more than half-an-hour—there is but little perceptible change in the relative position of parts, we must act boldly and make more radical efforts to rectify the malposition and effect delivery. Fortunately, this is within our reach, without risk to either the mother or child, and fortunately also it can be done during any period in the second stage of labour, even when the occiput is pressing down the perinæum. To allow labour to be further prolonged in the hope that rotation will eventually take place, or to allow the head to be delivered without rotation having been accomplished, is surely a stigma on the practice of obstetrics.

Here let me express my decided opinion that in these cases *the use of the forceps for combined traction and rotation should only be named to be condemned, while its use for traction alone can only be justified after an effort to rotate by other means has been made and failed.*

The method which I specially advocate, which is recommended, and briefly described by Herman, advised as a last resort by Jellett, and mentioned by Playfair, and which seems to me the easiest, safest and most effectual, is that of

rotation by the hand.

This I divide into two classes, according as the head is in the fairly advanced second stage of labour or bearing on the perinæum.

(A) *In the fairly advanced second stage of labour, the progress of the latter being distinctly retarded.* The patient having been anaesthetised, is placed on her left side, whether the occiput lies to the right side or the left,

because the convenience of the accoucheur is of first importance. *In the case of a right occipito-posterior presentation*, the right hand, with its back looking upwards, is introduced into the vagina. The fingers having been passed along the upper surface of the head, nearer to the sinciput than the occiput, and the thumb placed over the opposite or lower temple, the head is gripped with the whole hand, flexed and rotated, so as to occupy the left oblique diameter with the occiput in front. The hand, in its course, passes under the symphysis pubis, and now lies to the left of the patient, with the palm looking upwards. Without removing the hand the lower blade of the forceps is now introduced. This keeps the head in its altered position until the upper blade of the forceps is applied. With the forceps in position, for a short time, the chloroform may be withdrawn and labour allowed to go on in its natural way, or the chloroform may be continued and labour completed by forceps. I much prefer the latter course. The placing of the hand in position, the process of flexion and rotation of the head and the application of the forceps, take less than five minutes to accomplish, and if the delivery be completed by forceps, the duration of labour is shortened by at least two to three hours. There is no necessity to concern oneself as to whether the body will rotate with the head, as, in the event of this not happening, it does not involve any risk to the child. The head has certainly been rotated by the hand round two-eighths of a circle, and, by the forceps, another one-eighth before the head is delivered, but this may be done without injury to the spinal cord. If there be any anxiety on this point, the left hand may concurrently with the rotation of the head endeavour to rotate the body, but in practice it will be found of no importance whether this be done or not. That the body does actually rotate, however, is shown by the shoulders being found during their delivery in that oblique diameter of the pelvis that the head originally occupied.

In the case of a left occipito-posterior presentation, either the right or left hand may be employed. If the right hand be used, it is slipped along the lower surface of the head with the palm looking upwards, turns under the symphysis pubis to the patient's right side, and, when rotation is completed, lies with its palmar surface looking downwards. The forceps is then applied, but, on account of the position of the hand, the upper blade

must be applied before the lower. Should the left hand be used for rotation, instead of the right, it passes over the upper surface of the head, with the palm looking downwards, turns round in front of the perineum to the patient's left side, and lies with its palmar surface looking upwards, ready for the application of the lower blade of the forceps. It will thus be seen that when the right hand is used for flexion and rotation purposes in cases of left occipito-posterior presentations, it grips chiefly the sinciput, and sweeps round the arch of the pubes from left to right of the patient, and the upper blade of the forceps is the first to be applied; when the left hand is used, it grips the occiput, and sweeps round in front of the perineum from right to left of the patient, the lower blade of the forceps being the first to be applied.

(B) *In the late second stage of labour, the head being over the perineum.*—Flexion and rotation can be accomplished here, in the manner above described, but on account of the low position of the head, it is unnecessary to pass the whole hand into the vagina. Flexion may be aided by pressure on the sinciput with the left hand, thus materially helping the right or operating hand. I have never failed to rotate the head in this way, without injury to the mother or child, even when the occiput is bearing down the perineum. If, however, the medical man has been in attendance for some time, he should not have allowed valuable time to have been wasted, and should have effected restitution of the head before the second stage of labour had advanced so far. The time for active interference depends upon the progress of the case, and, as the medical attendant is generally sent for long before the occiput has reached the perineum, the time is one entirely of his own choice and which he must decide for himself. I have adopted this means of treatment for some years, and have no hesitation in saying that no other treatment can compare with it in efficiency or safety. Formerly I detested occipito-posterior presentations, because of the mere loss of time to all concerned; now I rather like them, because they add to the interest of the case.

Dunedin Medical School.—The Dunedin Medical School has now attained its majority, the twenty-first year of its career as a complete medical school having been finished at the end of last session. In 1886, Dr. W. S. Roberts and Dr. F. Ogston were appointed to lecture at the school, and by that its curriculum was completed, and students were enabled to take the full course, and graduate locally for the first time.

DEATH AFTER OPERATION.

By H. C. Hinder, M.B., Ch.M. (Syd.), Hon. Surgeon to Royal Prince Alfred Hospital, Sydney.

AFTER every death following upon operative interference the operator has naturally a strong tendency to look round for a scapegoat, to discover by what means he may lay the blame on other shoulders than his own. If the death is due to sepsis he is inclined to blame his assistants, blame in fact anyone but himself, whereas he himself is alone in the wrong, because he should hold himself responsible for his assistants, for the preparation of the materials used, in fact for every detail involved in the scheme of attack on the pathological condition requiring surgical interference. He may apply any salve to his conscience he pleases, but he cannot get away from the hard fact that the patient who entrusted his life in his hands is dead.

I consider that patients do not frequently die from one single cause, but that it is a summation of factors which brings about a fatal termination, and I feel quite sure that some of these do not obtain sufficient consideration at our hands. It is quite conceivable that while we may successfully combat the introduction of sepsis, while in a rough way we flatter ourselves that our patients do not die of hæmorrhage, we may by neglecting some side issues, which though less important in themselves, would, if entirely eliminated, create a balance in the patient's favour and save him from toppling over the brink.

I purpose now to deal with some of these causes in turn, illustrating them when possible with cases of death or cases which narrowly escaped death in my own experience.

I do not think that it would be just that I should weary you with any lengthy extracts from Crile's excellent work on shock; those who are interested may read Crile's experiments themselves. It will suffice if we accept his conclusions. We recognise shock as the depression or the death brought about by a vasomotor break down following upon traumatism. The more highly sensitive the part or the more completely it is supplied with nerve fibres the greater will be the amount of shock experienced by interference with that part.

The rougher and the more extensive the interference the greater the shock—that is to say, clean cutting and delicate careful manipulation will always produce less shock than forcible tearing and rending. The skin and

the intestinal peritoneum therefore will need greater care and gentleness in their manipulation than will most other parts of the body. Shock will be much more readily produced by injury to the genitals and the skin about the feet and hands than in many other parts. It is true that injury to the genital skin produces a lowering of blood pressure by stimulating the splanchnic area so that the patient is bled into his own abdominal vessels, but this result is not so produced by stimuli applied elsewhere. An initial stimulus is instantly followed by a rise of blood pressure to be immediately succeeded by a fall, and each succeeding stimulus has less and less power to bring about a reaction. Let me place before you a simple example. If a patient has four teeth extracted the first tooth is felt to produce a great amount of shock, but the removal of the others does not occasion anything like the same reaction. The depression goes on, but the sensation is dulled.

In operating within the abdomen we must exercise the greatest care not to handle or expose the intestine more than can be possibly avoided. Trendelenberg must be looked upon by all surgeons as one of the benefactors of the human race in having drawn attention to this getting of the intestines out of the way and the many other advantages to be derived from the position to which we usually attach his name.

Every surgeon who has done much abdominal work must have noticed what a marked depression was produced by handling the intestines, and what a vast difference there was in the patient's condition when the bowels could be well walled off by a suitable position and the protection of properly adjusted gauze pads.

The shock experienced in these cases is, of course, due to the impulses received through the cistomithnic sensory nerves, so that the shock is due to a summation of sensory stimuli, not necessary painful stimuli. A prolonged anæsthesia must have a considerable effect in aggravating the general depression. An anæsthetic continuously administered to a dog for ten hours will kill it. Probably at the end of two hours one-fifth of that effect has been produced. It is obvious, then, that the practice which obtains with some operators to have the patient's skin cleaned after he has come to the operating table is not necessarily a wise one, and that the operation should always be completed as rapidly as possible; similarly it is better for the patient

if his operator discusses his condition with the audience after the operation than during the course of it.

Some years ago Professor Martin demonstrated to us the very powerful lethal effect that the absorption of blood serum might have upon a patient. He bled a dog and separated the blood serum. This was injected into the peritoneal cavity of the dog. The dog died from the absorption of its own blood serum. The importance of this cannot be too highly estimated. Let anyone take particular notice of a series of cases in which the operative treatment has necessitated such a considerable interference with the tissues as to leave a large amount of raw surface. If this raw surface is in such a position that pressure may be applied by bandage so that there is but a very slight chance of the escape of serous exudation, there will be a very little, if any, rise of constitutional disturbance. If, on the other hand, the case be an abdominal one, where it is not possible to apply pressure to an extensive raw surface, and if, too, absolutely no drainage is used, the little rise of temperature, general sense of illness and languor will be distinctly marked, although the patient will run an aseptic course. I am well aware that some of you might say that no surgical operation is truly aseptic, and such is certainly the case; the mere exposure of the wound to the atmosphere for a few seconds is probably quite sufficient to allow the entrance of some organisms; but, nevertheless, these, while perhaps not absolutely harmless, if in small quantity do not account for the disturbance produced, for Professor Martin's experiment was performed with thorough aseptic precautions, and the absorption of the large dose was followed by death.

If any operator choose to select another abdominal case in which there has been established, as far as he can judge, the same conditions, and let him take steps to get rid of the serous exudation as soon as possible by efficient drainage, the difference between the after condition of the two cases will be most marked.

The depression is more noticeable after abdominal cases because the serous exudation is the more rapidly absorbed, the dose is large, and quickly taken up. I feel convinced that death after an extensive burn is not wholly due to shock, but also to the serous absorption which takes place. I

speaking, of course, of early death, before septic absorption of the products of organisms has become a feature worth considering.

We will not consider death due to the introduction of septic material, for it would necessarily open up too wide a subject, and deaths from such a cause must be very rare nowadays in the hands of men with any pretensions to a knowledge of modern surgery. We will merely consider the absorption of toxins from septic wound conditions already in existence. If a catheter is passed on a patient with stricture, the surface of the urethra is frequently abraded; within two hours he may become extremely ill, with a high temperature and a rigor. That man is not suffering from the effects produced by a dirty catheter, but from the absorption of toxins already lying in his own urethra.

Reginald Harrison tells of a young woman from whom he removed a stone from the kidney. Some three months after her medical attendant asked him to again see the patient, as she still had a sinus in which he thought he could feel a small calculus. Harrison slightly dilated the sinus with a pair of sinus forceps and removed the stone. In 24 hours the girl was dead. She died of toxæmia. Repeatedly I have been able to prevent the occurrence of rigors after catheterism for stricture by gentle manipulation and by injecting a solution of silver nitrate into the urethra with a view to cauterising the surface and prevent the absorption of toxins.

I have only lost two patients out of 22 nephrectomies, and this record is certainly due to fortuitous circumstances. One patient died because both his kidneys were packed with stones right throughout the cortex to such a degree that the radiographer thought that they were merely kidney shadows. The symptoms were one-sided. The specimen is in the museum, and is a very remarkable one. The other patient died after a secondary operation. She had a long suppurating sinus leading down to the bottom of a very fibrotic and matted-down kidney. I endeavoured, though unsuccessfully, by dissecting out the sinus to keep the septic material from contaminating the wound. The manipulation was severe, the hæmorrhage very moderate, but a large absorbing surface had been established and the freest drainage was supplied. She simply developed a more and more rapid pulse, and died in about 18 hours. Without going into par-

ticulars of several of the other patients, I may say that they were of a somewhat similar character, and behaved somewhat similarly, too, developing a very rapid pulse, and giving one occasion for the greatest anxiety, barely escaping death. Taking into consideration one's knowledge of the amount of depression likely to be due to shock and the amount due to length of time of operation, anæsthesia, and hæmorrhage, the profound disturbance was, I felt sure, due to toxic absorption. Some tubercular, septic and malignant cases in which the kidney could be removed without disturbance of its contents recovered with far less constitutional disturbance.

Crile's experimental work goes to show that the removal of ribs does not of necessity cause any greater shock than would be expected from the cutting of so much bone and skin. For my own part I have been greatly impressed by the profound depression which has existed after the removal of portions of several ribs in order to bring about a collapse of the chest wall in old-standing cases of empyema, though the operation was carried out with the special object of completing it quickly and with a minimum loss of blood.

In such cases it was hardly possible to avoid contaminating the wound, and the cavity was often curetted in order to establish a better healing surface, and packed with gauze to provide good drainage for the first day or so. I once opened a man's abdomen expecting to find an acutely inflamed appendix, but instead he had a strangulated knuckle of bowel, a Littre's hernia in fact, only as large as a hazel nut, caught at the internal ring and not perceptible externally. I drew this out into the abdomen, and about a dessertspoonful of dirty fluid escaped. This was mopped up as completely as possible, but the man died within twelve hours. This would appear to account to some extent for the great mortality which attends internal herniæ. They die owing to the rapid absorption of the toxin let loose. I have on two occasions known an abdominal hydatid cyst to be ruptured by the too generous eagerness of students. A slight temperature and rash followed the accident. A woman doubted my statement that she had a small ovarian cyst as large as a hen's egg, and while endeavouring to demonstrate it to her the cyst ruptured. She had some pain and a temperature within three hours, which lasted two or three days. I heard of two women who died in a peculiarly collapsed condition after confine-

ment. Post-mortem showed the presence of a ruptured ovarian cyst. I certainly would not call these deaths from shock, but much more probably are they due to toxic absorption. This would indicate that although the contents of an ovarian cyst may be aseptic they are by no means harmless.

A short time ago I operated upon a tubercular knee. The bone was sound and there was no sign of mixed infection. The skin was unbroken. Extensive tubercular collections surrounded and involved the joint. The patient's temperature was 100. I resected the joint and cut away the bulk of the tuberculous material. The whole operation was completed without any fingering of the structures. The patient was put to bed. He sweated most profusely and continuously, had a very high temperature, and died in about 20 hours. He died of too large a dose of his own toxin. I think I have said enough to show that the patient's own toxins are well worthy the consideration of the surgeon.

Patients probably rarely die of a straight out hæmorrhage. I once operated upon a woman for ectopic gestation, who had only been ill 1½ hours. Immediately before she was fast asleep. At the time she was opened up she had widely dilated pupils and was throwing herself about the bed partly unconscious; her pulse was barely perceptible. A trifling amount of chloroform only was used. Blood was spouting from the ruptured tube. It was remarkable how steadily she rallied after the hæmorrhage had ceased. The rapidity of the loss as well as the quantity was responsible for her grave condition. She recovered.

Only once have I been compelled to remove the kidney because of hæmorrhage. An aberrant renal vessel of large size was severed, and the bleeding was fast and furious. On all other occasions, whether due to rupture from accident or due to surgical interference, suture or simple pressure against the muscles of the back with the hand right in the wound has most effectually checked it. Two patients with malignant disease and jaundice died of a continual ooze from the abdominal wound, in 24 hours and 36 hours respectively. Two patients, a child and an old woman, were in sad straits from hæmorrhage from a simple abdominal wound. It took place so gradually that I failed to appreciate its importance. The wound was reopened and the blood-clot was wiped away. Not a bleeding vessel could be seen, and there was no further loss. The

bleeding was kept up by the mouths of small vessels being held open by the distending mass of clot. A small fibroid was shelled out of the fundus of the uterus of a woman, sent to me by Dr. Lloyd. She was feeble and had suffered from long continued hæmorrhages. A few hours after it was evident that she was bleeding. The abdomen was reopened and the blood wiped out. There could be seen a slight ooze from along the line of suture. The wound in the uterus was reopened and the deep and superficial catgut sutures renewed. In a few hours there was again evidence of hæmorrhage, and the abdomen was again opened and blood-clots removed, but hardly a sign of ooze could be detected along my second line of suture. The unfortunate woman succumbed very shortly after, although on this occasion I left a packing of gauze on the line of suture. There was no history that would induce one to think that she had been a bleeder, but I have observed that there is certainly a greater tendency to prolonged oozing in patients who have steadily lost a great deal of blood, and it would be advisable to give a few preparatory doses of calcium chloride before operating upon very anæmic patients. This line of treatment is certainly of value in preventing death from hæmorrhage where malignant disease is associated with jaundice. An operation which takes a long time is almost sure to be attended with a greater loss of blood than one which is accomplished quickly. A careful operator may be speedy just as easily as a speedy man may be careless. Over-cautiousness is not necessarily carefulness. Extending the time of an operation by delivering a clinique to spectators may be interesting to the audience, but by no means a good thing for the patient.

The administration of saline solution is always looked upon as the great reviver after hæmorrhage, but it can only be justifiable during the course of an operation when all hæmorrhage has been put an end to, as, for example, when a ruptured tubal pregnancy has been ligatured off. To administer a saline when there is still a great probability of further oozing from large raw surfaces is ridiculous, yet it is at times done. I have seen such an error committed, and I believe it had a great deal to do with the death of the woman a few hours after.

In cases of death from blood loss the heart fails from want of something to work on; give it blood or even give it saline, the mere

presence of the fluid acts as a stimulus to further exertion, because it is capable of much further exertion. Raise the extremities and get the fluids to the heart; this alone, in cases where it might be considered unwise to administer saline for the reason already mentioned, will often be sufficient to keep the patient going until it may be considered advisable to supply fluids.

I have already made reference to death from toxæmia, but I desire now to deal with a different phase of the subject. Septic peritonitis is answerable for a vast number of deaths, and we are but on the threshold of our knowledge of the many peculiar phases of this subject. Hitherto the bacillus coli has had the unenviable reputation of being the cause of the greater number of deaths. The colon family is a large one, and we have no precise knowledge what members of the group behave particularly badly. The fact that a certain microbe is found in large numbers in the abdomen of a patient who has died of septic peritonitis is no reason for believing that that microbe was the cause of death; in fact it has been lately urged that members of the colon group are distinctly inimical to the streptococci and other organisms. The virtues of the staphylococcus albus have lately been extolled, but in the present uncertain state of our knowledge I think that it would be wiser if we simply directed our energies to the getting rid of all foreign elements within the peritoneal cavity by the method which will ensure the gentlest manipulation and the speediest completion of the operation. For my own part, I have tried all kinds of methods. Evisceration and careful cleansing of the whole cavity failed because the unfortunate patient became so reduced, mainly from shock, that he almost invariably failed to rally. Wiping and mopping out I found in extensive infections to be slow, damaging to the peritoneum, and by no means thorough, although in the more localised and early infections it was all that was required; but with extensive extravasation of fluid there was nothing like a thorough, gentle wash out by means of a long tube passed through an opening made in the left kidney pouch. Possibly some may say that the tube should be passed up from the lower wound. So it may, and the patient get well in spite of it; but there is no denying the fact that a clean tube passed through a clean wound in the loin and so establishing a gentle current through uninfected areas to those infected about the wound must be safer.

Gentleness and rapidity are of immense importance.

I think we are apt to talk too glibly about general peritonitis with recovery. For my own part I am inclined to think that a true general peritonitis is always fatal. Numbers of cases of free extravasation of infective fluids are opened up and washed out, but most of those I have met with showed that the peritoneum presented an apparently normal surface; whereas, on the other hand, some fatal cases showed but a few coils of intestine deeply turgid and injected in the immediate vicinity of the source of infection. I do not remember ever to have been sorry that I had drained, but I have been very sorry that I had not drained.

I can hardly go into the question of drainage very completely, nor do I wish you to imagine that I consider that every case should be drained. Apart from our desire to get rid of exudation products which are inimical in themselves and also afford pabulum for organisms introduced, or which may have been present already, unless we can be positive of the organisms with which we are dealing it would be wiser to make a clean sweep of them all. Some men think that it is a mark of brilliant surgery to use no drain, but rashness is often mistaken for brilliancy, and ignorance of danger is the parent of such rashness. Let the surgeon think what he would prefer if it were his own abdomen.

There is another phase of this question of death after operation which I think we ought to consider. It is possible for a man by very careful selection of his cases to have a very limited mortality indeed; but after all, our mission is not to establish records. Then, again, many patients die simply because they are left too late. It matters little whether they are cases of malignant disease or acute sepsis. The plea usually urged is that one need be so very careful how he approaches a patient with a view to obtain his permission to accept operation as the soundest form of treatment. The longer we live the more will we be forced to believe that this lack of decision and earnestness on the part of the profession is the cause of a very fair percentage of deaths. At the least men should insist that if their advice is not accepted the patient or his friends should bear the whole responsibility.

Very frequently the surgeon operates upon a patient when he knows that the chances of recovery are infinitesimal, or perhaps in his opinion they are absent, and he does so to

save the attendant from any aspersions which might be cast on his diagnostic ability, while he has himself to bear the blame for the patient's death. If such accidents happened owing to the difficulty in arriving at a diagnosis they would be pardonable, but more often it is rather a lack of decision than of precision.

The title of this paper, as time went on, involved me in too many issues, so that I am afraid I have been somewhat too terse and at times have given you merely a skeleton of my views; but after all the writing of the paper is not so much in order that I might present my own ideas as that we might all have an opportunity of hearing the views of others on a very vital question. A surgical death is a professional calamity. If the patient is about to die because of his own ignorance, stupidity, or obstinacy, we deplore the fact and do our best to save him, but we must do our utmost to prevent his death lying at the door of any member of that profession in which we urge the public to place implicit faith and confidence.

(Read before the New South Wales Branch of the British Medical Association.)

OPENING THE POSTERIOR CUL-DE-SAC.

By W. A. Verco, M.B., Ch.B., Assistant Gynaecologist, Adelaide Hospital.

In my probationary days the opening of the posterior cul-de-sac was never purposely undertaken, unless perchance as part of a very rarely performed vaginal hysterectomy, but nowadays it is of frequent occurrence in the routine of those who are intimate with diseases of women. In the practise of those outside this sphere of work it is, I fear, scarcely ever done, and one may confidently add, to the misfortune of many of their patients. There is no doubt but that this operation has a wide range of usefulness, and if more often performed it would not only allay a lot of unnecessary suffering, but would also be the means of saving many tubes and ovaries that are now sacrificed. The early opening of the cul-de-sac would prevent the further spread of many pelvic inflammatory conditions with their accompanying injuries to the generative organs. It would also arrest the further absorption of many injurious toxins, and thus save many very useful lives to the home and to the community. When acute inflammation attacks the adnexa, our

aim should be incision and drainage. In these acute conditions, it is not only a conservative interference, but it is frequently curative in its results.

At one time all collections of pus and infective fluids were drained by a tube through the abdominal wall, leading down among the viscera to the pelvis. This was frequently followed by a toxæmia caused by an infection of the more absorbent parts of the peritoneal cavity, and often proved fatal to the patient. If recovery followed, there was a dense tract of adhesions along the course of the drain, to the source of the trouble in the pelvis. These in their turn frequently caused pain and abdominal distress, and occasionally intestinal obstruction. Besides these misfortunes, there was the possibility of weakened abdominal wall, and often a ventral hernia. Now, these pathological conditions should be drained by an opening through the vaginal vault. The advantages of such an opening are numerous. There is very little tissue to cut through, and scarcely any bleeding. Occasionally when there are adhesions the general peritoneal cavity is not opened at all; when it is opened, the risk of general infection is nothing like so great as when the opening is by the abdominal route. Again, there is less shock, and, above all, there is good drainage—drainage in the natural direction of gravity. There is practically no risk of hernia; and unless the opening has been made for some inflammatory condition, there are very few adhesions, and those that remain, unless kept up by the pre-operative condition, are frequently painless. Then, again, a patient operated on by the vagina can be up and about in a much shorter time than when operated on through the abdominal wall.

The opening of the posterior cul-de-sac may be made for many reasons:—(1) For diagnostic purposes; (2) for acute inflammatory conditions and for acute infectious troubles; (3) for drainage of pus collections; (4) for removal of cysts and retrouterine and interligamentary growths; (5) replacement of malposed generative organs; (6) drainage after abdominal operations.

Taking the first condition, there are cases in which, after all our usual avenues of information have been exhausted, we are uncertain as to the exact condition of things in Douglas' pouch, or in connection with the tubes or ovaries. An opening in the posterior cul-de-sac and the insertion of a finger will

often clear up the doubt and determine one's line of treatment. For instance, a woman came with a history of a short, sharp pain, occurring two weeks ago on pushing a perambulator over a little heavy ground. She felt slightly faint at the time, but was soon all right again, except for a little soreness in the left inguinal region, which has continued more or less ever since. Her temperature was 99.2° . She had a baby $4\frac{1}{2}$ months old; she was not suckling; her courses were regular. The period had come on again at the proper interval, but instead of ceasing at the usual time there has been a little dribble since. On examination, per vagina, the uterus was not enlarged, was in midline, and to the left of the uterus was a small, indistinct swelling, which was very slightly tender. Diagnosis, a probable ectopic gestation. The posterior vaginal vault was opened, and black blood escaped; a finger was inserted, and the left tube was found enlarged and to contain a foetal sac and old blood-clot. Pryor says that if you are at all in doubt as to whether your patient has an ectopic gestation, make an opening in the posterior cul-de-sac and be sure. When once diagnosed, then you can remove it, if small, by the posterior opening; or, if large, then by the abdomen.

In the second condition in which we may open the retrouterine pouch the object is to drain away the poisons and their products which may have gained access to the pelvic peritoneum by means of the oviducts or by the uterine lymphatics, or by both avenues of infection. This, to my mind, is a very important class of cases, and should be dealt with promptly and boldly. This line of treatment was first suggested by Heurotin, and was developed and perfected by Pryor. It should be adopted in acute gonorrhœal infections of the tubes and in infections the result of sepsis, as after abortions, confinements, or any other traumatic condition. It should be undertaken directly there is evidence of the poison having got beyond the uterus. When the cul-de-sac has been opened the tubes should be pulled down, the ostium opened and a small drain of iodoform gauze inserted. All adhesions are separated in these recent cases, the pelvis wiped dry, and the lower part of the cul-de-sac filled with 5 per cent. iodoform gauze. In all these inflammatory and septic conditions, the uterus is first curetted and lightly packed with iodoform gauze. The retrouterine pouch should not be irrigated, as the fluid might

escape into the general peritoneal cavity. The opening through the vaginal vault and the loose packing in the pouch allows free drainage, both from the tubes and from the lymphatics. The iodoform liberates free iodine, which exerts its bactericidal action on the germ-laden tissues around. I have had failures in both the gonorrhœal and puerperal form of infections, but this was not the fault of the operation, but because the cases had been going on for too long a time before they had been seen. In the class of cases characterised by a collection of pus, if the pus is free or encephalated in Douglas' pouch, the vaginal opening is the very thing, and I have seen the patient get quite all right without any further interference. If the pus is in the form of a pyosalpinx, the patient, especially if of the better class, should always be given a chance of the trouble clearing up by such a conservative interference. The vaginal roof should be opened, and fair-sized openings made into the tube or tubes, breaking down all pus pockets, and then draining with a tube and iodoform gauze. Here the success will depend on the obliteration of the abscess cavities. It has struck me that whereas the continuance of the pain and discharge from these abscess cavities may be kept up by the diseased mucous membrane in the tubes, the result might be better if, after splitting the tubes, we curetted them, thus scraping the diseased membranes away. In these pus tube cases the results are generally better in streptococcal infections than in those caused by the gonococcus.

It is said that 50 per cent. of these pyosalpinx cases will be so much relieved by this procedure as to refuse any further operation. When one sees the mental and physical wrecks which often supervene in these young women on the removal of their ovaries and tubes, this result is well worth trying for. If pain continues, and the woman's health does not improve, then we must proceed to the radical operation, which too frequently means the removal of both tubes and ovaries. In abscess of the ovary it is better to drain by the vagina and use plenty of iodoform gauze in the upper part of the pouch on account of the usual virulence of the germs in these ovarian abscesses. The sac can be removed later if necessary.

Pus collections in connection with the appendix may also be drained by the vagina, as suggested by Moynihan; also very rarely, pus collections in this region caused by perforation of a duodenal ulcer.

In the fourth condition, that of the removal of cysts, the vaginal route is a very useful one in selected cases. Small cystic ovaries and hydrosalpinx may be readily removed. In fairly large ovarian cysts, if the outline is even, showing that there are not many secondary cysts, and where there is an absence of any inflammatory history, there may be removal through the cul-de-sac, adding the vertical median incision of Heurotin, if more room is needed. There was a case at the Adelaide Hospital, which had been sent in as a large pyosalpinx. She had a temperature, and all the usual febrile symptoms, with pain and tenderness in the left inguinal region. On p.v. examination, there was found to be an oblong tumour in the pelvic cavity, placed more to the left side. It contained fluid, but seemed too well defined for pus. Under ether, an opening was made in the vaginal vault, and on insertion of the finger it was found to be an ovarian cyst with its long diameter lying across the pelvis. As it was free of any old adhesions, it was gently pressed into the cul-de-sac, and an aspirating needle inserted, drawing off about a pint of fluid. As the cyst emptied it was caught hold of by clips and pulled into the vagina. The ovarian vessels were ligated and the cyst removed. A couple of stitches closed the sides of the vaginal opening. The patient was practically well the next day. There was no shock and no ill after effects.

Hydatid cysts in the pelvis may also be treated through the cul-de-sac opening.

In cases of retro-deviation of the uterus, the vaginal vault having been opened, and the uterus, having been previously dilated and everted, is replaced in its normal position, and is kept in the corrected position by gauze pads, until adhesions form between the cervix and the sacro-uterine ligaments and rectum. It is essentially a plastic operation, and in the hands of Pryor, who introduced it, has been very successful.

Another use which the cul-de-sac opening may serve, but which I have never seen advised, would be in cases of expected or commencing labour, where there is a lump in Douglas' pouch, which may prevent the easy descent of the presenting head. Here it might be found that the lump could be pushed out of the way by a finger or fingers in the posterior opening, and labour terminated, the tumour being dealt with at some future time. In one case, in which there was found to be a tumour in the pouch of Douglas,

and labour commenced, the patient was allowed to go on all night to see if the head would descend. As it did not do so, in the morning all preparations were made for a Cæsarean section, and the patient placed under ether. Then with the hand in the vagina, the lump was manipulated out of the way, and the head delivered by forceps. Within two days there were rigors and a temperature up to 105° from inflammatory changes occurring in the tumour, which on removal proved to be a fairly large dermoid. Dermoid tumours, if known to be present, should always be removed before the onset of labour. If small, they may be removed by the vaginal opening.

Another very important use for the cul-de-sac opening occurs in abdominal operations, in which the cyst may have ruptured during our efforts to separate adhesions, especially where it contained pus, or fluid undergoing degenerative changes—also where there has been injury to hollow organs, and again in inflammatory conditions occurring in hæmatomata, and in cases where there has been a lot of manipulation. In a large multilocular ovarian cyst, where the patient had been feverish for eight weeks, and which was undergoing degenerative and putrefactive changes, in endeavouring to separate adhesions down by the rectum, it burst, and the very evil and four smelling contents escaped into the abdomen. In this case in the subsequent hurry to get the cyst out, the right ureter was cut across. As the distal end could not be found, an opening was made into the base of the bladder, after having removed the body of the uterus, and the ureter was pulled into the opening by threaded catgut, and fixed there by sutures. It was as snug as possible, and tension was relieved by drawing the bladder over to the injured side. In this case part of the cyst wall, which was intimately attached to the rectum, was left behind, as there was a fear of opening the bowel. A large tube was run through an opening in the cul-de-sac from the operation area and the patient did splendidly, though, at the time, I feared that she had very little chance of life. In one ectopic case in which the right tube and ovary had been removed, and all loose blood-clot, the patient, after getting up at the end of the third week, had a rise of temperature, and the development of a swelling in the right fornix. Under ether, an opening was made in the vaginal vault, and the right broad ligament opened, and a tube

inserted with the escape of foetid pus. She was soon convalescent. In another ectopic of the right tubo-ovarian variety, where the abdomen was full of blood and the patient very collapsed, the right adnexa were quickly removed, the abdomen washed out, and a tube put through into the vagina. The old clots broke down and formed pus of a foetid character. The vaginal drain was the safety valve that gave her life and health again.

In contrast to these cases, I might briefly mention two experiences that occurred in my earlier days. In one the ovarian cyst burst before the operation, either while the patient was being given an enema, or during the administration of the anæsthetic. The cyst was removed, the abdomen washed out, and a Keith's glass drainage tube inserted. She died in about a week. The other case was a fairly large ovarian abscess, which, during the process of the separation of adhesions, burst into the abdominal cavity. The cyst was removed, the abdomen washed out and drained through the abdominal incision, with a fatal result. There is no doubt in my mind that had I drained per vaginam, and omitted the washing out of the abdomen, both cases would have recovered.

This little operation, if wisely used, will save a large number of lives, and prevent a great amount of misery.

(Read before the South Australian Branch of the British Medical Association.)

NOTE ON THE OPSONIC METHOD OF TREATMENT IN CASES OF PULMONARY TUBERCULOSIS.

By C. Reissmann, M.A., M.D., B.Sc., and Helen Mayo, M.B., B.S., Adelaide, S.A.

WE have treated some 30 cases of pulmonary tuberculosis by the opsonic method. The patients all resided at the Kalyra Sanatorium. Among them were five with very slight disease (Class I, Turban). Four of these have completely recovered and one was much improved. The other patients did not benefit very greatly by the treatment. They had an ever-varying opsonic index. On one occasion it might be sub-normal, say, 0.4, and on the following day it might be as high as 1.4, so that it was often a matter of great difficulty to decide upon the time of injection and the dose of tuberculin to be employed. Thus the opsonic method is not of great use in the treatment of the more advanced cases of consumption. The estimation of the

opsonic index takes a considerable amount of time, especially when the laboratory is situated a long distance from the patient. Therefore in a case of advanced and active disease, where the index changes rapidly, one cannot be sure that it has not fallen considerably during the time spent in going to and from the laboratory and in making the necessary manipulations. When the disease is slight and not very active this difficulty does not arise, or in such a case the opsonic index is less variable unless the patient has been disturbed by active exercise or some other external influence. When the index was not subject to rapid changes it has usually furnished us with a faithful record of the progress of the case. For example, one patient steadily improved while having injections of tuberculin. Four doses were given—0.0001 cc., 0.0002 cc., 0.0002 cc., and 0.0003 cc.; the treatment extended over six weeks. During this time the successive opsonic indexes were 0.49, 1.13, 1.57, and 1.62. In another patient in whom albuminuria appeared and who became extremely ill, the opsonic index gradually declined. It fell from 1.08 first to 0.89, and then to 0.2. Twelve days after the appearance of albuminuria it was 0.12. Three weeks later, as the patient recovered, the index had risen to 0.47, and a week later it was 1.3.

We have only used one preparation of tuberculin, that known as T.R. of Koch. The initial dose was usually 0.0001 cc., and the maximum dose 0.0007 cc. The original emulsion was diluted with a 0.5 per cent. solution of lysol in distilled water. The injections never gave pain and rarely were followed by a febrile reaction; indeed, the majority of the patients stated that they felt the better for them. No patient ever refused the treatment; on the contrary, the patients were always glad to be selected as suitable for the injections. This attitude is in marked contrast to their behaviour when the old tuberculin T.O. was used (in larger doses) for purposes of diagnosis. On account of the severe reaction which sometimes followed the diagnostic injections, several patients preferred to leave the institution rather than submit to them. As already stated, injections of T.R. rarely caused a febrile reaction, but in one patient there followed both a positive reaction and an extension of the disease. This was a case of chronic and active disease. At the commencement of the treatment the opsonic index was 0.71; an

injection of 0·0002 cc. of T.R. was then given. On the following day the index was a little higher, 0·92. Two days later a second injection was made (again 0·0002 cc.). On the following day the temperature was 102·2°, the highest recorded since the admission of the patient, and she had an attack of pleurisy. During the next fortnight the successive indexes were 0·78, 0·98, 1·87, 1·18, 1·18. As the index was now stationary, and as the temperature of the patient had not exceeded 99° for ten days, a third injection of tuberculin was made (again 0·0002 cc.). On the following day the patient was again very ill, and the temperature rose to 102·2°. The negative phase which followed persisted for some days, and the index fell to 0·8, but it slowly rose again above normal. Meanwhile the disease in the lung had extended considerably. In this case the estimation of the opsonic index conveyed to us no warning that small doses of tuberculin might have a harmful effect. We would like, however, to emphasise the fact that this was a case of chronic and active disease of the lung, and that the patient had also suffered from tubercular disease of the hip some years previously. The patient has since improved. The failure of this case in no way affects our opinion that the opsonic treatment is useful in cases of early tuberculosis.

In one early case the injection was always followed by an urticarial eruption, and in another case an erythema followed which persisted for several weeks. It is possible that these skin eruptions were caused by the diluent (lysol) and not by the tuberculin.

It is stated that in tuberculosis the opsonins are thermostatic; they are not destroyed by heating to 60° C., and that this fact may be used to diagnose the condition. While we are able to confirm this rule, we have not found it infallible or trustworthy. In one case the opsonic index was 0·92; after heating it was 0·18. According to the rule this negatived the diagnosis of tuberculosis. Yet on the same day we found tubercle bacilli in the patient's sputum. In fact, when the index was within normal limits (0·8 to 0·2) the heated serum usually gave a negative reaction; on the other hand, when the index was positive for tubercle the heat test was also positive. It may be objected that our technique was faulty, to which we must reply that great care has been exercised, and that if in spite of such care considerable errors may be

made, the method is of no great practical utility.

On the whole, we feel that in cases of moderately advanced consumption the opsonic treatment is not helpful; it may even be dangerous. We feel equally sure that in early cases the method is useful, and we shall in future restrict its application to cases in the early stages. The opsonic method cannot replace but it may usefully supplement sanatorium treatment. If injections of tuberculin are to be used, they should always follow the determination of the opsonic index, for it is the only means of knowing with certainty the way in which the immunising apparatus is reacting. The difficult technique is a stumbling-block. It is impossible for the general practitioner to gain the necessary skill from the investigation of an occasional case. Like Widal's reaction, it is a laboratory test which can only be conveniently carried out by the laboratory worker. The little tubes of blood for opsonic investigation can be sent by post, and the opsonic index can be accurately estimated 48 hours or even longer after the blood has been drawn.

CLINICAL AND PATHOLOGICAL NOTES.

SIMULTANEOUS DISLOCATION OF BOTH SHOULDERS.

THE publication in the *British Medical Journal* of July 6th, page 20, of a case of simultaneous dislocation of both shoulder-joints, reminds me of an exactly similar case that occurred in Sydney quite ten years ago.

A woman, named D., aged about 45 or 50, and living in Kent-street, was climbing up a step-ladder one night in her home when she missed her footing and fell heavily on the floor. She was picked up and placed in bed, and was seen by me very shortly afterwards. I found her to have had both shoulder-joints dislocated. As it was then late (10 p.m.), and I had no chloroform with me, and no assistance, I advised her removal to St. Vincent's Hospital. She was admitted to the hospital the same night, and, under chloroform, both dislocations were reduced by Dr. Percy Muller (of Lismore), who was the then house surgeon. There were absolutely no other injuries. This case was never recorded, and now, seeing that a similar case has just been reported at Durham, I have thought that possibly this Sydney case might be worth recording now.—

London, July 9th. M. J. LYDEN, M.D.

REVIEWS AND NOTICES OF BOOKS.

ANÆSTHETICS AND THEIR ADMINISTRATION. A Text-book for Medical and Dental Practitioners and Students. By Fredk. W. Hewitt, M.V.O., M.D. (Cantab.). Third edition, with illustrations. Number of pages xxxiii, 627. London: Macmillan and Co. 1907. Price, 15s net.

The third edition (1907) of this classic maintains the high standard of those preceding it. Analysing carefully the many investigations of recent years—since 1901—the author has found it necessary to modify some old theories, to omit others, and to accept or partially accept new ones. It is gratifying to us to note the prominence given to the work of Embley and Martin, whose conclusions are practically adopted in the summing up on page 133 under the question, “How does chloroform kill?” So important is this summing up that it is worth quoting here:—“So far as we have gone, then, it would seem that we have in chloroform a drug which is a powerful protoplasmic poison, which, when given in toxic quantities, leads to death of the organism, not because it paralyzes respiration . . . but because, as recent researches have shown, it markedly depresses the circulation.” In the paragraph on “Habits of Life,” the very important question to us in Australia of the effect of the excessive use of tobacco by subjects of anæsthesia administration is but lightly considered, while its frequent result, especially in the form of cigarette-smoking, the production of the often dangerous state of “false anæsthesia,” page 394, is ignored. To the author, as to most of us who have long practised the open method of chloroform administration, Mr. Vernon Harcourt’s “ingenious apparatus” for the close method remains—“only that and nothing more.” There is an excellent chapter on anæsthetic sequences. The march of recent events has necessitated the interposition of a rather dubious chapter on ethyl chloride, damning it with mild dams, and closing with an ominous paragraph containing the information that one investigator believes the mortality to be about 1 in 3000—slightly higher than that of chloroform! However, the chapter describes a simple inhaler for conveniently obtaining these results. An interesting, but at present necessarily inconclusive *résumé* of the then literature on the condition of “acid intoxication”—“acidosis”—or “delayed chloroform poisoning,” has also been introduced. The chapter treating of surgical shock is practically rewritten and worthy of careful study, but strikes one as being inadequate to the importance of the subject. We cannot agree with the cavalier way in which the author disposes of the value of the use of adrenalin. Presumably from the context, he has never known it to be used in adequate doses, and only as a desperate “last try.” Like the lady in her postscript, so the author in his preface makes one of the most interesting and practical suggestions. He there makes out a good—because a commonsense—case for the necessity of bringing the teaching of “anæsthetics and their administration” into line with that of other important subjects of the medical curriculum. We in New South Wales have for some years in a mild, non-committal way made an attempt at the teaching of the practical methods of anæsthesia administration to medical students. But it is a question which will bear working out, whether the whole subject has not become of sufficient importance to the student of medicine, and to the community, to warrant the appointment of a special university lecturer thereon, who should be *ex*

officio a member of the staff of the affiliated hospital, holding equal status with other university lecturers upon it.

THE ESSENTIAL SIMILARITY OF INNOCENT AND MALIGNANT TUMOURS: A STUDY OF TUMOUR GROWTH. By Charles W. Cathcart, M.A., M.B., C.M. (Edin.), F.R.C.S. (Eng. & Edin.). Bristol: John Wright and Co. 1907. Large octavo, pp. xii + 79; 38 plates with 86 figs. Price, 9s 6d.

Surgeons and pathologists alike believe that malignant tumours vary in their degrees of malignancy. This doctrine of *relative malignancy* is extended by Mr. Cathcart to all tumours. He holds that there is no absolute criterion of distinction between innocent and malignant tumours, but that *all* tumours are essentially similar; that while cancers differ in degree from benign tumours they do not differ in kind. As evidences of malignancy he takes excessive local growth, degeneration and hæmorrhage, local dissemination, infiltration of surroundings, lymph dissemination and blood dissemination, and sets out to show that in any particular class of tumours we can find a regular gradation from those which possess none of these six characteristics to those which possess them all. He describes at length three such graded series of tumours arising in bone—(1) cartilaginous, (2) bony and fibrous, (3) medullary. These are illustrated by beautifully-produced macroscopic and microscopic photographs, which seem to us complete proof of the author’s contention. Not having space to deal with other classes of tumours with the same elaboration, he contents himself with quoting opinions similar to his own from Virchow on fibrous tumours, Halstead and Paget on tumours of the breast, Eve on tumours of the jaw, Teacher on moles, and so on. Having established this doctrine of regular gradation in character from innocency to malignancy, he proceeds to the transformation of innocent into malignant tumours, and to the presence in the same patient of tumours of a similar type, some innocent and some malignant; and finally to tumours exhibiting in their characters combinations of innocency and malignancy. In view of the facts adduced there seems no escape from the conclusions the author set out to establish, and no doubt of the importance of this conclusion as a guide in the search for a cancer cure. The book is well printed and handsomely bound.

INSANITY CURED BY A NEW TREATMENT. By C. W. Suckling, M.D. (Lond.), Birmingham. Birmingham: Cornish Bros., Ltd., 37 New-street. 1907. Price 2s.

Those who are familiar with Dr. Suckling’s writings will be quite prepared to learn that the “New Treatment” advocated in this small pamphlet is the operation of nephropexy. Dr. Suckling believes that the dropping of the kidney causes symptoms in two ways. “First, *mechanical*, by reaction or pressure on blood-vessels, nerves, ureter, colon, stomach, etc., causing gastric and intestinal symptoms, pain, dilatation of the stomach, colitis, ovaritis, and uterine troubles. Second, *toxic*, through retention of urine, causing insanity, melancholia, mental depression, headaches, and morbid fears.” These symptoms are met with both in men and women, and the writer considers that a special type of insanity consisting of mental depression with delusions and suicidal tendencies is due to the toxic effects produced by the displacement of the kidney. We are all familiar with the fact that displaced kidney may be detected frequently with an

entire absence of any of the mental symptoms Dr. Suckling enumerates. We also know that in some neurasthenic conditions the kidney may be displaced, and apparently this displacement gives rise to local symptoms. We know further that not infrequently operation for fixation of the kidney does *not* relieve either the local or general symptoms, and it will take more than the few cases scantily reported by Dr. Suckling as cured by the operation of nephropexy to convince us of the soundness of his arguments. In the treatment of any morbid condition we should aim at the removal of any and every possible source of peripheral irritation, but until further clinical experience has shown that the operation of nephropexy is invariably followed by the relief of the mental symptoms above described, we shall be disposed to consider Dr. Suckling's thesis as "not proven."

SECOND ANNUAL REPORT OF THE HENRY PHIPPS INSTITUTE FOR THE STUDY, TREATMENT AND PREVENTION OF TUBERCULOSIS. Octavo, pp. 452. Philadelphia: Henry Phipps Institute. 1906.

This book has no introduction, preface, nor table of contents, but opens abruptly with a contribution by the director, Dr. L. F. Flick, which constitutes quite a commentary on many important points in the epidemiology of tuberculosis. The point of view throughout is essentially modern, as is shown by the following quotations on three important subjects:—1. *The difficulties of early diagnosis.*—"It is quite evident that tuberculosis, in spite of the fact that it is tissue-destroyer, does not attract much attention, does not manifest itself in the beginning by symptoms pronounced enough to attract attention, and does not greatly discommode its victims. The average physician does not recognise tuberculosis in a stage earlier than that in which tissue has been destroyed. . . . He does not realise that tuberculosis has an earlier stage in which it is easily curable, and that this stage may be found even in the cases which consult him for stomach trouble, neurasthenia, malaria, and many undefined conditions passing current under some convenient name which means nothing." "Frequently the only symptom of dormant tuberculosis is subnormal weight." 2. *Mixed infection.*—"The temperature range of tuberculosis evidently is not a wide one. It is, indeed, quite possible that when the temperature goes above 100° the rise is due to a mixed infection." "Blood-spitting is undoubtedly, in some cases at least, due to mixed infection, and frequently occurs with breaking down of tissue." "The cough which accompanies tuberculosis of the lungs is most frequently caused by a mixed infection." 3. *Infrequency of t.b. in sputum.*—"In tuberculosis positive findings only are possible when the disease has gone far beyond the incipient stage and destruction of tissue has already taken place. But even when this stage has been reached tubercle bacilli are not always found in the sputum." After reading these admirable statements, one is surprised to find that there is no mention of the value of Koch's old tuberculin in early diagnosis, and that pleurisy, measles and influenza are described as "previous diseases" and not as sequels of the tuberculous infection. This opening chapter emphasises the hopelessness of the poor consumptive and his dependents if left to struggle unaided, and insists on the value of the *dispensary* in protecting the housemates of the diseased. The *autopsy report* consists mainly of statistics of lesions, but contains also several interesting comments—e.g., that on the importance of the pleura as a battlefield in the struggle between

the invaders and the invaded. The *neurological* report again is mainly anatomical. It describes a new form of chronic tuberculous meningo-encephalitis under the name of localised cortical and subcortical hemorrhagic softening secondary to tuberculous lesions of the meninges. It is illustrated by seven excellent plates, but, unfortunately, the magnification of the microscopical ones is not stated. The studies, clinical and pathological, of the *kidney* and *liver* in tuberculosis are very elaborate. The authors conclude that tuberculosis of both these organs is comparatively common in advanced pulmonary disease, but, except for the finding of t.b. in the urine in renal cases, is recognisable only with the greatest difficulty. In the chapter on *cardiac conditions* two important truths are brought out, viz., that cardiac symptoms are usually due to functional incapacity resulting from malnutrition and toxæmia, and that a persistently frequent pulse makes the prognosis unfavourable. Perhaps the greatest interest attaches to the reports on the *serums of Maragliano and Marmorek*. In addition to historical and descriptive accounts of their manufacture, the records of several patients treated with the former are quoted. The conclusions are—first, that no verdict on its value can yet be given, and, second, that improvement in the pulmonary symptoms is as great in cases not treated with serum as in those treated. Dr. Leonard Pearson, as the result of a visit to many laboratories in Europe, including those of Koch and Behring, contributes a review of the attempts to immunise animals against tuberculosis. He seems to have examined the subject very fully, but his article, itself a summary, does not readily lend itself to further summation. He concludes that absolute proof has been furnished that cattle may be rendered highly immune to tuberculosis by a process that is not harmful to them. In addition to the articles mentioned there are minor reports on the *larynx*, *skin* and *mental attitude* in tuberculosis, together with an appendix on the forms and blanks employed, and the rules enforced at the institute. From these latter, from the thorough case records with which the book is filled, and from the excellence of the Report generally, we gather that the institute sets itself a lofty standard and does splendid work. The printing is clear and correct, and there are two indices—one of the cases quoted, and the other of the subject matter.

MANUAL OF DRILLS AND EXERCISES FOR THE ST. JOHN AMBULANCE BRIGADE IN AUSTRALIA. Compiled by Major George Lane Mullins, A.A.M.C., Knight of Grace of the Order of the Hospital of St. John of Jerusalem in England, Commissioner St. John Ambulance Brigade in Australia. Sydney: Turner and Henderson. Number of pages, 64. Price, 1s.

This manual of drills and exercises for the use of the brigade in Australia has been issued owing to the official drill-book having been out of print for some time. The drills and exercises have been adapted from the Imperial Infantry Training, 1905, and the manual for the Royal Army Medical Corps, 1904. Part 1 contains such infantry drill as is required for carrying out the stretcher and other exercises correctly. Part 2 consists of stretcher drill. This manual will be used as the official drill manual of the brigade in Australia, and all examinations, whether in competitions or for annual efficiency, will be carried out in accordance therewith.

Messrs. Parke, Davis & Co. direct attention to their advertisement on page 12.—[ADVT.]

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH AUGUST, 1907.

ADULTERATION OF FOODS.

FROM statements made by the president at the annual meeting of the New South Wales Grocers' Association, it is evident that further legislation is needed to secure a pure food supply, and we understand that a new bill has been drafted by Dr. ASHBURTON THOMPSON, President of the Board of Health, which will cover this ground. The chief complaint of the Retail Grocers' Association is that under the present Health Act the manufacturers of adulterated foods, if convicted, are merely fined in comparatively small sums, which they readily pay, while the retailer loses his reputation and custom if he is exposed in the Court as having retailed adulterated articles.

It is, however, a consolation to know that since the present law was put into force in 1901 there has been a great diminution in the amount of adulteration of food and drink generally. This holds good specially with regard to milk. In 1901 in the whole of the metropolis only 212 samples of milk were taken, and of these over 60 per cent. were adulterated, while last year 1074 samples were obtained, and on analysis only 9.5 per cent. did not come up to the standard of purity. According to Dr. W. G. ARMSTRONG, the City Health Officer, at the present time we may consider the supply of milk, bread, butter, and jam to be up to the standard required, and to be practically free from adulteration. At the present time active steps are being taken against some manufacturers of oatmeal, who find they can sell a cheaper article by adulter-

ating the oatmeal with wheaten meal. While the latter is not in any way injurious to health, still the mixture of oatmeal and wheaten meal is not what the consumer believes he is purchasing when he asks for "oatmeal."

Much comment was made some years ago on the introduction of the stringent regulations against the use of preservatives. It was asserted that in these warm climates it was impossible to keep certain articles of food fresh for a sufficient length of time, and it was customary then to adulterate sausages and other meats with boric acid. Owing, however, to the heavy fines inflicted on purveyors of such of these articles as were found to be mixed with preservatives, the practice is said now to have ceased, and sausages are still good. But it is possible that other kinds of preservatives have taken the place of boric acid, as sulphurous acid is not unknown as an agent used for this purpose.

It is stated that wines and spirits are still largely diluted with water, and do not come up to the standard required. It is obvious that a very strict system of inspection and analysis is required to prevent this fraud on the public.

On the whole, however, we must congratulate the health officials on the steady advance which has been made in the past towards securing a pure and unadulterated food supply, and with the introduction of further legislation, which will enforce certain standards of quality, and give the officials further power in certain directions in which at present they are helpless, public apprehension will be allayed, and the public health generally improved.

As this legislation is urgently needed, we hope that the medical men in the new Parliament will do all they can to assist the Board of Health in securing the necessary legislative enactments.

THE LAUNCESTON HOSPITAL DISPUTE

FOR some considerable time past there has been an undercurrent of dissatisfaction with the management of the Launceston Hospital, so far, at least, as concerns the position of the surgeon superintendent. Under one of the rules of the institution the surgeon superintendent is allowed the right of consultation practice outside the hospital, and it appears that Dr. RAMSAY has been gradually acquiring a large private practice in addition to his holding the resident appointment of surgeon superintendent of the hospital at a salary of £400 per annum. It has been stated, further, by the Hospital Committee that owing to the large increase in the number of in-patients it has been necessary to increase the resident staff by the appointment of an additional resident medical officer.

From the correspondence which has passed between the chairman of the hospital and the Chief Secretary it is quite clear that the former gentleman holds views of hospital management which certainly do not conform to those of the medical profession generally, and that he is determined to do his best to retain the present status of the surgeon superintendent. To begin with, it is an anomalous position for a medical man to receive a relatively large salary as medical superintendent of the hospital and to be allowed in addition to conduct a large private practice. This may be allowed in a small country town with only one resident doctor, but it certainly is an anomaly in a town like Launceston. Moreover, the Hospital Committee considers that "the public, as taxpayers, have the right to the services of the surgeon superintendent; that to deny them this right would be productive of serious injury to patients!" Talk of hospital abuse! Here we have it openly advocated by the Hospital Committee, and a slur cast upon the medical profession outside the hospital.

The Chief Secretary, in his reply to the letter of the chairman of the hospital, has stated that the committee have acted quite irregularly in appointing an additional medical officer without consulting the Government upon their proposal, and has foreshadowed some proposed legislation bearing on the management of the hospital. This appears to have created a considerable stir in the camp, and we learn that over 8000 adults of Northern Tasmania have signed a petition to the chairman, requesting that no alteration in the position of the surgeon superintendent should be allowed. It would be interesting to know who initiated and worked this monster petition. We do not suppose that a tenth part of the signatories have any special desire on the subject one way or the other.

It seems, however, that a determined effort is being made to run the hospital on socialistic lines, and we regret that Dr. RAMSAY should continue to hold a position which can only lead to friction with his fellow practitioners in Launceston. We hope that the new legislation proposed by the Government will define matters more clearly, and that the Launceston Hospital Committee will be compelled to recognise that a hospital supported by voluntary contributions and aided by Government grant is intended for the relief of the sick and suffering and not for all and sundry who may wish to get medical advice from the surgeon superintendent.

THE MONTH.

The Australasian Medical Congress, Melbourne, 1908.

The Executive Committee of this Congress desire to draw special attention to the following standing orders which have been drawn up: 16. Notice of all papers, exhibits, etc., to be submitted should be in the hands of the general secretary or secretary of section two months before the opening of Congress, otherwise they will probably not be included in the

published programme of sectional work. Papers may, however, be accepted up to and even during the meeting of Congress. All notices of papers, exhibits, etc., are subject to acceptance by the Executive Committee, or in emergency, by the president of the section concerned. 17. Reports prepared at the request of the Executive Committee or of any sectional committee should be in the hands of the general secretary or secretary of section at least one month before the opening of Congress, and as far as possible such reports will be printed for distribution at or before the Congress. 18. Short abstracts of papers should be forwarded to the general secretary or secretary of section one month before the opening of the Congress, and as far as possible such abstracts will be printed for distribution at or before the Congress.

Paying Patients in Public Charities.

The Talbot Colony for Epileptics in Victoria has recently been opened for the reception of patients, and in a circular just issued it is stated that "the Council of the Talbot Colony for Epileptics now declare the institution duly opened, and are prepared to admit a limited number of patients, both male and female. In the first instance, however, the majority of those admitted will be such as can pay a weekly sum towards their care and maintenance. Provision is also being made in the shape of more special accommodation for applicants who wish to avail themselves thereof, and who are prepared to pay full fees. Full particulars as to amounts, accommodation, etc., may be obtained on application to the secretary." It appears that the Melbourne Benevolent Asylum committee had admitted a number of cases of epilepsy to their institution pending the opening of the Talbot Colony. It is said, however, that owing to the above regulation the committee find it very difficult to have their patients transferred to the epileptic colony, as, we presume, they are likely to be poorer classes, who are not able to pay the weekly sum required. It would appear further from the above circular that some of the money contributed by the general public for the establishment of a public charity has been expended in providing special accommodation for some patients able to pay, so it is said, up to £3 3s per week. If these are true facts it is, to say the least of it, unfair to the poor epileptic who cannot afford to pay for private treatment to be refused the benefits of a

charitable institution founded for that purpose, and it is also unfair that the money provided by the charitable public for a charitable object should be utilised in providing treatment for persons well able to pay for it elsewhere. The general public can hardly be expected to contribute to the maintenance of an institution conducted on these lines, but we should be sorry to see such a valuable institution suffer financially in consequence.

Professional Etiquette.

By one of those curious coincidences which occur from time to time, two somewhat similar cases have occurred almost simultaneously in Melbourne and in Newcastle, in which a woman is reported to have died suddenly after confinement, owing to the refusal of medical men to attend the patients, on the ground of "professional etiquette." In each case the doctor who had been engaged to attend the patient in her confinement was not available when his services were required, and owing, it is alleged, to the failure to get other doctors to attend, the patient died. All the facts of the cases are not known to us, but we must emphatically deny the truth of the assertion in the daily press that "medical etiquette" stood in the way of a patient securing prompt and efficient treatment in time of danger. So much charitable work is done by medical men that the general public are inclined to expect more from medical men than is possible for human beings to accomplish; but we are sure that no medical man would decline to respond to an urgent call to relieve a patient in imminent danger to life on a plea of professional etiquette. It would appear that various circumstances combined to render it impossible to secure the services of the doctors who were called upon in these two cases referred to, and while we sympathise with the husbands in their unfortunate losses, we must resent the slur cast upon the medical profession. The general public should learn that the maintenance of professional etiquette is in the best interests of the patients themselves, and no rule of that nature will ever prevent the rendering of assistance to a patient in time of danger.

The After-care of Mental Convalescents.

What promises to be a most valuable institution has recently been instituted in Sydney. The idea is to assist persons who have been discharged from hospitals for

insane, and was initiated during June at Gladesville Hospital for the Insane by a number of ladies and gentlemen. As a result, a society called the After-care Association was started. A further meeting was held on July 31st for the purpose of furthering the scheme. The association is founded in the interests of patients convalescent from mental disorders, who, on their discharge from hospitals for insane, are without suitable homes. For such cases it is sought to procure employment for those fitted. If sufficient funds are forthcoming it is suggested to establish a home of industry, which would at first provide accommodation for 10 or 12 women awaiting situations. At this home the cultivation of vegetables, poultry-keeping, sewing, and laundry work could be carried out for profit, contributions to be obtained where possible from relatives or inmates. Many women lose their mental balance owing to very sad experience, and on leaving an institution take a hopeless view of life. Some are not trained, nor fitted for, domestic duties, and have no home. In a home of industry they would be able to follow out some special line of work and earn a little money for themselves. Mr. F. C. Rooke said that in other parts of the world such institutions were attended with great success. An executive committee was formed as follows:—Mrs. Daveneyr, Dr. Lloyd, Miss Haddon, Miss Paterson (hon. secretary), Mr. W. A. E. Lewis (hon. treasurer). It was also suggested by the chairman that committees be formed in Parramatta and Balmain districts. The sum of £12 15s had already been collected by the treasurer, but it is considered that at least £1000 will be needed to give this new charity a fair start. We heartily commend the movement as being a most useful and necessary one in the interests of the unfortunate sufferers from mental disease, and we wish it every success. We shall be glad to receive any contributions in aid of it, to be forwarded to the proper quarter.

The Importation of Saccharine.

Some years ago it was found that saccharine was being largely used in the manufacture of syrups and cordials in place of cane sugar, and when the regulations bearing on the use of preservatives, etc., in foods were drawn up by the Board of Health, saccharine was allowed to be used, but in very restricted quantities. The Federal Government having

issued a proclamation last March prohibiting the importation of saccharine into the Commonwealth, except for medicinal or scientific purposes, and the stocks of saccharine held by importers are running short, the manufacturers of non-intoxicating drinks are finding themselves in an awkward position. The matter has been brought under the notice of the Minister for Customs, who no doubt will find some way out of the difficulty. While saccharine may be harmless as a substitute for sugar as ordinarily used, it has yet to be proved that its use in the manufacture of cordials and syrups(?) is innocuous, and in these circumstances we think the Federal proclamation is one in the best interests of the public health.

Tropical Diseases.

A step forward in the establishment of organised research on tropical diseases in Australia has been taken by the Senate of the University of Sydney. It has agreed to contribute £100 towards a research fund of £250 provided the remaining three-fifths is contributed by the Universities of Melbourne and Adelaide. While this proposal will tend to unite the three Universities of Australia in the scheme, we think that the amount suggested, unless it be intended as an annual contribution, is totally inadequate for the purpose. If satisfactory and useful research work is to be accomplished it must be spread over some years, and £250 could hardly be considered sufficient for one year's expenses of a research scholar, whose whole time would be spent in this work. The very nature of these researches necessitates prolonged investigation, and the providing of a sum which is not sufficient for one year's work can hardly be considered a satisfactory solution of the problem, though it may well be regarded as an earnest of the interest taken in this work by the Universities.

Inebriates' Retreat in Victoria.—In a report on the recently established inebriates' institution at Lara, the Inspector-General of the Insane, Dr. Jones, who is the official inspector of the institution, states that on July 11th there were three male patients there. They all stated that they were comfortable, and well cared for. The institution was scrupulously clean. Dr. Godfrey was paying periodical visits, and was placing the patients under suitable treatment. The patients had already commenced to work in the grounds and gardens, and had assisted to put the place in order. Ample means of amusement and recreation were provided. On the farm the ploughing work authorised was nearly completed.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

A MEETING of the New South Wales Branch was held at the Royal Society's Rooms, Sydney, on July 26th; the President (Dr. B. J. Newmarch) in the chair.

An apology was received from Dr. R. H. Todd for his absence from the meeting.

The minutes of the last meeting were read and confirmed.

The PRESIDENT announced the election of the following new members:—Drs. Jessie R. Aspinall, Sydney; T. G. Campbell, Sydney; F. Challands, Mudgee; L. Cowlishaw, Sydney; W. H. Elworthy, Penrith; P. Fiaschi, Sydney; H. E. Fox, Kiama; D. D. Gibson, Dubbo; C. H. Graham, Wellington; J. R. Leslie, Sydney; E. Linton, Wellington; T. P. McKell, Barabara; A. B. Phillips, Grafton; A. M. Rygate, Wellington; F. Sturges, Wellington.

And the nomination of the following candidates:—Drs. Edmond Daniel Edwards, Glebe (from Croydon Division, South-eastern Branch); John Hampton Cahill, Annandale; Herbert William Kendall, Woolfahra; William Seldon, Annandale; Edward Schuett, Sydney. Drs. James Hornidge Chauncey, Delegate; Robert Edmund Woolnough, Kempsey; Joseph Lexton Shell-shear, Sydney; Archibald John Aspinall, Sydney; Herbert Michael Moran, Newcastle Hospital; James G. Edwards, Sydney Hospital.

Dr. H. C. HINDER read a paper on "Death after Operation." (See page 387.)

The PRESIDENT thought it difficult to discuss offhand all the points in a paper such as that they had just listened to, but some had struck him specially. The death after operation for strangulated hernia might or might not be due to toxæmia, but he thought it quite probable that it was due to profound toxic absorption before the operation was performed at all. The use of an injection of silver nitrate before passing a catheter had been advocated years ago by Keys, of New York, and he (the speaker) had used it for a long time. As regarded drainage, he considered that 12 hours were long enough to drain, and the drainage should be free and not by a tube.

Dr. W. CHISHOLM thought there was much to discuss in Dr. Hinder's paper, and he would prefer to read it over carefully before doing so. He had recently been reading Sir James Paget's Clinical Lectures. These were first published in the *Lancet* in 1867, and are more interesting in the light of modern developments. Sir James Paget discussed different types of patients and their prospects of recovery after operation. No mention was, of course, made of bacteriology, but it seemed as if Paget were on the eve of a great discovery, for he evidently recognised that there were some elements at work which caused death in certain cases even after the mechanical effect of disease, such as strangulation of the bowel in hernia, had been removed by operation. In these cases you were not dealing with a mere mechanical difficulty in the intestines, but with some disease upon which your operation has no good effect whatever. Paget was most emphatic in asserting the principle that patients should always be warned of the dangers of operation, however trivial they might appear to be. In view of the high mortality from malignant disease he (the speaker) thought that operations were too

frequently undertaken in advanced cases, and that they should only be performed for the relief of serious complications. Death which occurred soon after operation on patients suffering from advanced malignant disease added to the list of unsuccessful surgical procedures, and tended to frighten patients from submitting to operations in the early stages of their disease. Years ago there was reference to the "change of type" in disease. It seemed to him that now there was a "change of type" in death after operation. It was at one time not unusual to hear of the fatal result being attributed to some failure on the part of the surgeon; nowadays it is more usual for this to be attributed to some oversight on the part of the house surgeon or nurse, or to defective preparation of the ligatures, or to that latest refuge of the unsuccessful surgeon—delayed chloroform poisoning. But perhaps this is due to the fact that our surgeons are better educated. He complimented Dr. Hinder on his paper.

Dr. T. FIASCHI considered a good paper to be one from which they might pick up any suggestions of value to be adopted in their practice. In Dr. Hinder's paper one striking and valuable suggestion was made, and that was the adoption of the principle of washing out an infected cavity, not through the wound made by the surgeon at first, but from a new and healthy wound towards the dirty one. As regards the results of treatment of acute peritonitis, he felt sure that he had had recoveries after abdominal section when he had found the abdomen full of pus and the peritoneum evidently in a condition of acute inflammation. He had unintentionally adopted the treatment advocated by Dr. Hinder in making lumbar incisions and washing out the cavity through these incisions.

Dr. CRAGO had formerly used drainage in most of his abdominal operations, but latterly had abandoned it to a large extent, and he thought the results as good now as formerly. He quite agreed with Dr. Hinder that the less manipulation of the intestine the less shock. In general suppurative peritonitis the coils of intestine were generally matted together, and he thought one ought not to disturb the lymph, but simply to swab out the pus with least disturbance. Murphy's results in cases of that nature were excellent, and he laid much stress on continued irrigation of the bowel with normal saline solution.

Dr. P. FIASCHI referred to the question of death after anesthetics, and urged the adoption of the administration of ether by the open method, which was so largely used now in America. By this method the patient could be kept sufficiently narcotised by very small amounts of ether. He considered Dr. Hinder's suggestion on drainage most valuable, and referred to various methods adopted by American surgeons.

Dr. HINDER, in reply, said that each case required to be considered on its merits as to whether drainage should be employed or not. If there were a large raw surface exposed, or a large amount of exudation likely to be formed, drainage for a few hours was desirable. He thought their own experiences in the large Sydney hospitals sufficient to enable them to formulate their own methods of practice without reference to the experiences of either American or European surgeons.

Dr. SYDNEY JAMIESON read a paper on "Splenio Anæmia." (To appear in a later issue.)

Dr. W. H. CRAGO referred to a case of splenic anæmia which had been under Dr. Thring's care in the Terraces private hospital a year or two ago. The diagnosis was established microscopically. An attempt was made to remove the spleen, but some complications prevented the completion of the opera-

tion. The patient improved very much in colour and strength after the exploratory operation.

Dr. T. FIASCHI observed that one more disease was being abandoned by the physicians to the surgeons.

Dr. SINCLAIR GILLIES referred to the difficulty experienced in differentiating Banti's disease from ordinary cirrhosis of liver with enlarged spleen. Was there any connection between the diseased condition of the two organs? Could disease of the spleen *per se* cause cirrhosis of the liver? As regards treatment, he did not believe in handing over these cases to the surgeon too soon. He believed that some cases recovered under arsenic and iron, at any rate for a time, and he thought that medical treatment should be persevered with before the operation of splenectomy was undertaken.

Dr. JAMIESON, in reply, said that the macroscopical and microscopical appearances of the spleen in chronic congestion were totally different from those of the spleen in Banti's disease. He had never seen a spleen in a condition of simple chronic congestion enlarged to anything like the extent it was in the cases he had described. If cases of Banti's disease were left alone they all died, although perhaps not until the lapse of eight or ten years. The only really effective treatment was the operation of splenectomy, but even after this the results were not too good. After the operation both the condition of the blood and the liver improved.

Council Meetings.

A meeting of the Council was held on Tuesday, July 9th, at which there were present:—Dr. Newmarch (President) in the chair, Drs. Abbott, Brady, Crago, Dick, Maitland, Read, Rennie, Todd.

The minutes of the meeting of June 11th were read and signed.

Accounts amounting to £96 18s 6d were passed for payment.

The Editor of the *Australasian Medical Gazette* introduced a discussion on the most satisfactory mode of obtaining official information from the branches of the Association in Australasia of their proceedings for publication in the *Gazette*. It was resolved to communicate with the other branches referred to with a view of obtaining their co-operation in an endeavour to make the reports of their proceedings complete, authoritative, and a more important feature of the *Gazette*.

A request was received from a member for a copy of correspondence between the Council and another member in regard to a complaint made by him to the Council concerning the conduct of the other member. It was decided that although the member complaining was entitled to be informed of the decision of the Council on the matter complained of by him, he ought not to be supplied with a copy of the correspondence between the Council and the other member after the decision had been given without that member's consent.

A request from the Council of the Eastern Suburbs Medical Association was received—"That the Eastern Suburbs Association be known as the Eastern Suburbs Division of the New South Wales Branch of the British Medical Association." In this connection reference was made to the scheme for the formation of divisions in New South Wales, elaborated by Dr. Hankins and published as a supplement to the *Australasian Medical Gazette* of March, 1906; and to the fact that very little support was given by the members to the scheme, the general opinion being that the formation of divisions was unsuitable to the conditions obtaining at the present time in New South Wales. The Council did not favour the view that one group of members should be constituted a division, and were not satisfied that the constitution admitted of its being done. It was decided

that the sanction of the Council should not be given to the proposition of the Council of the Eastern Suburbs Medical Association.

Draft regulations for carrying into effect the resolution of the Branch of June 28th—"That an Emergency Fund, to be under the management of the Council, be created by voluntary subscription for dealing with disputes in cases of contract practice and otherwise for maintaining the interests of the profession against organised bodies in the community," submitted by the Hon. Secretary, were referred to a sub-committee for report.

A meeting of the Council was held on August 13th, 1907, at 8.30 p.m., at the office of the Association, 121 Bathurst-street, Sydney. There were present: the President (Dr. B. J. Newmarch) in the chair; Dr. G. H. Abbott, Dr. A. J. Brady, Dr. W. H. Crago, Dr. J. A. Dick, Dr. H. C. Hinder, Dr. E. J. Jenkins, Dr. H. L. Maitland, Dr. C. Read, Dr. R. H. Todd.

The minutes of the meeting of July 9th were read and confirmed.

Election of Members.—The following were elected members of the Branch:—Dr. A. J. Aspinall, Dr. J. H. Cahill, Dr. J. H. Chauncey, Dr. E. D. Edwards, Dr. J. G. Edwards, Dr. W. R. Graham, Dr. H. W. Kendall, Dr. A. J. Moran, Dr. W. Seldon, Dr. J. L. Shellshear, Dr. R. E. Woolnough.

The Hon. Treasurer's statement showed that there was £711 14s 4d to the credit of general account, and £409 17s 5d to the credit of the *GAZETTE* account. Accounts to the amount of £67 12s 7d were passed for payment.

Draft Charter.—A letter dated June 7th, 1907, was received from the Medical Secretary in reference to amendment of the draft charter in accordance with suggestions made by the New South Wales Branch, and enclosing a circular letter of same date from the organisation committee to the colonial Branches, advising of the adoption by the special representative meeting of certain amendments proposed by the organisation committee in order to meet the wishes of the colonial Branches, and notifying the fact that the Council had decided to take a referendum of all the divisions upon certain of the resolutions of the representative body.

Prosecutions under the Medical Practitioners Act.—A letter was received from the Acting Under-Secretary of the Department of the Attorney-General and of Justice, advising that certain persons had pleaded guilty in proceedings taken against them on the instructions of the Attorney-General under the Act No. 70 of 1900, and had each been fined £1 and 6s costs.

Confidential List.—In reference to inquiries by members for information in regard to the confidential list, it was resolved that reasons why names appear on the list ought not to be given.

Reports by medical practitioners to coroners in cases of death dealt with by coroners.—A letter was received from a member drawing the attention of the Council to the facts that, in a case of sudden death seen by him shortly before death ensued, the police had advised by telephone that the Coroner required his report, that the report was duly forwarded in writing, that a message was subsequently received from the police to the effect that the Coroner was satisfied on the report that an inquest was unnecessary, that an account for one guinea was rendered to the Coroner and payment refused. The Hon. Secretary reported that he had advised the member that the Coroner had no legal right to require and the practitioner had been under no legal obligation to give a report. It was resolved that the injustice which

medical practitioners suffered from refusal to pay for reports in such cases should be brought under the notice of the Minister with a view to a remedy being provided, and that the position of medical practitioners in such cases should be made clear to members through the medium of the AUSTRALASIAN MEDICAL GAZETTE.

Emergency Fund.—Regulations drafted by the sub-committee and amended by the meeting were approved as follow:—1. The fund is created to assist in maintaining the interests of members of the medical profession in New South Wales in their relations with organised bodies in the community. 2. All members of the profession who are eligible for membership of or are members of the British Medical Association are invited to contribute to the fund by donation and by subscription payable quarterly, half-yearly, or yearly. 3. Special contributions may be accepted for use in specified disputes or for application to specified methods of carrying out the objects of the fund. The unexpended balance of contributions accepted for use in specified disputes shall be merged in the fund. 4. The fund shall be under the control of the Council of the New South Wales Branch of the British Medical Association, and shall be vested in the names of the President and the Hon. Treasurer of the Branch. Payments shall be made only on the authority of the Council or of a sub-committee of the Council acting under powers specifically delegated by the Council. 5. The fund may be applied (a) in making a grant or grants to any individual subscriber to the fund to assist him in maintaining any position in which the Council shall have decided to support him, or to render financial assistance to him for losses which he shall have incurred through taking action approved by the Council; (b) in expenditure incurred by the Council in establishing, administering and promoting the objects of the fund. 6. No grant shall be made from the fund to any subscriber of less than 12 months' standing or to one whose subscription is three months in arrear. 7. The fund shall not be operated upon for the purpose of making grants to individual subscribers until its accumulated amount shall have reached £1500. 8. In the event of the accumulated amount of the fund not having reached £1500 by the 31st day of December, 1909, the Council may decide not to accept any further contributions to it, and upon such decision shall either distribute the fund among those who have contributed to it in proportion to the respective amounts of their contributions, or deal with it in such way as shall appear to the Council most nearly to meet the wishes of the contributors. 9. The minimum subscription to the fund shall be two guineas per annum for medical officers of lodges and one guinea per annum for others.

Granville Electorate Cottage Hospital.—A letter was received forwarding a communication from eight medical practitioners practising in the locality disapproving of the establishment of the hospital. It was resolved that in the opinion of the Council it appeared to be a question for individual practitioners to decide whether they would or would not become associated with the hospital.

The establishment of scientific laboratories by manufacturing chemists.—A letter was received from Messrs. Parke, Davis & Company, Sydney, stating that they contemplated establishing scientific laboratories for clinical diagnosis and other purposes, and inviting the Association for an expression of opinion on the subject, as they did not wish to trespass on work specially within the scope of medical men, and desired to avoid any breach of medical ethics. It was resolved that in the opinion of the Council scientific laboratories

such as those mentioned in the letter were capable of being established and conducted without trespassing on work specially within the scope of practitioners of medicine.

Victoria.

THE ordinary monthly meeting was held in the hall of the Medical Society of Victoria on Wednesday, August 7th. The senior vice-president, Mr. G. A. Syme, occupied the chair.

Dr. W. KENT HUGHES showed a case of empyema of the frontal sinus after operation.

THE HON. SECRETARY announced the election of the following new members:—Drs. H. E. Loughran (Murtoa), R. E. St. John Naylor (Sunbury), and F. R. Legge (Alfred Hospital).

Dr. A. N. MACARTHUR read notes of a case of Acidosis (delayed chloroform poisoning), with comments upon existing theories. A married woman, *æt.* 27, was admitted to St. Vincent's Hospital on June 26th last complaining of considerable pain in the left iliac region, with shivering, etc. Her temperature was 99.8° F., pulse 92, respirations 24. The urine had a specific gravity of 1015 and contained a slight amount of albumen, but no glucose. Three days later she had slight rigors with a distinct one on July 1st, after which her temperature was 102.4° F. Operation was performed on July 2nd under chloroform (Duncan and Flockhart) anæsthesia, and the tip of a long appendix was found adherent over the left sacroiliac synchondrosis. The appendix was removed. Her pulse remained rapid after the operation, never being below 120. A constant frown was seen on her brow as in mental cases. On July 5th she was very restless, and refused to answer questions or do as she was told. She rapidly became acutely maniacal, and struggled savagely. Her skin and conjunctivæ were yellow. Nourishment could not be given by the mouth. Pot. brom. dr. 1 was administered per rectum and hyoscine hypodermically. Her temperature was now 99.4° F. and her pulse 144. She became drowsy and semi-comatose, pupils equal and normal. She was given large rectal injections of sod. bicarb. without effect. Post mortem examination revealed nothing further than slight cerebral congestion. There was no evidence of fatty degeneration macroscopically. The chief theory in vogue was that there was necessarily some fatty degeneration present in these cases and that the balance of the normal and abnormal metabolism is upset by the chloroform. Acetone is found in the urine; often diacetic acid, etc. It means a deficient oxidation of the tissues, causing auto-intoxication. The treatment consisted in the injection of salines. He would suggest the trial of thyroid extract on a theoretical basis. All post-operative cases should have the urine examined for acetone, diacetic or oxybutyric acids.

Dr. W. MOORE said that he had listened with great interest. He had seen similar symptoms in a few cases, but in only one had the urine been specially examined, and then it had been for the presence of iodine, as iodoform poisoning was thought to be a possible cause. In this case there was no attempt at recovery after operation for appendicitis. In several cases he had seen jaundice after operation, and in some there had been a condition of semicoma. In all a large quantity of chloroform had been administered, and most of the cases had been heavy drinkers. He would in future have the urine carefully examined in all cases after operation where there was the least discolouration of the skin.

Mr. G. A. SYME cited the case of a lady upon whom he had performed gastro-enterostomy. The operation

was uneventful and there were no complications. There was no abnormality on the second day, but towards evening she became restless with intense air-hunger, and was apparently unconscious of her surroundings. Dr. Maudsley suggested acidosis. The urine was found to contain diacetic acid, but no acetone. She became comatose and died in 24 hours. Lately, another case had occurred at St. Vincent's Hospital, which would be reported when microscopical examination of the organ had been completed. In that case there was marked fatty degeneration of the liver. In two other cases in young people death had occurred rapidly after the onset of symptoms. The pathology at present was chaotic. Many cases seemed to occur after semi-starvation and rectal feeding, or in septic cases, especially appendical. The anæsthetic was seemingly an essential factor. There was usually some fatty degeneration of the organs and often some jaundice. The treatment was doubtful. Benefit occasionally seen from suprarenal extract. Alkalies were recommended.

Dr. J. A. R. SMITH showed a series of specimens of blood treated with various strengths of solution of sod. bicarb., showing that hæmolytic could not be caused by any strength used as a rule for injection, either venous or hypodermically or rectally.

Dr. H. C. MAUDSLEY discussed the alkaline treatment. In these cases, though there was intense air-hunger there was no cyanosis. The condition was one of retention of CO_2 in the tissues, not in the blood. The condition of the blood prevented the passage of the CO_2 from the tissues into the blood. In his opinion before death in many cases there was a condition of acidosis. There was nearly always fatty degeneration of the liver, usually marked.

Dr. C. H. MOLLISON showed various most interesting specimens of pathological anatomy, etc.

South Australia.

THE 28th annual meeting of the South Australian Branch was held at 4 p.m. on Thursday, June 27th, 1907, at the Adelaide University. The retiring President (Dr. E. W. Morris) occupied the chair. There was a very good attendance of members.

The minutes of the previous annual meeting were read and confirmed.

The annual report of the Branch Council and the treasurer's report and balance-sheet for 1906 (as already published in the March issue of the *Gazette*) were adopted.

The Branch Council for the forthcoming 12 months were elected as follows:—President, Dr. J. H. Evans; vice-president, Dr. A. M. Morgan; hon. treasurer, Dr. W. T. Hayward (re-elected); hon. secretary, Dr. J. B. Gunson (re-elected); ordinary members of Council, Drs. E. W. Morris (ex-president), Reg. Hamilton, H. S. Newland and Reissmann.

The hon. auditor (Dr. A. E. Wigg), the local editor of *A.M.G.* (Dr. H. S. Newland), and the Parliamentary Bills Committee were all re-elected.

Dr. E. W. MORRIS then delivered the presidential address. He then vacated the chair in favour of the new president (Dr. J. H. Evans), whom he introduced to the members, and who briefly thanked them for the honour conferred on him.

A hearty vote of thanks was passed in favour of Dr. Morris for his address and for the able way he had carried out his duties as president.

Votes of thanks were also passed to the retiring Council and also to the University Council for the use of rooms for the monthly meetings.

In the evening 38 members attended the annual medical dinner at the South Australian Hotel.

The monthly meeting was held on Thursday, July 25th, 1907, at 8 p.m., at the University of Adelaide. The President (Dr. J. H. Evans) took the chair, and there were 37 members present.

The minutes of the last ordinary monthly meeting were read by the Hon. Secretary and confirmed.

Patients were shown by Drs. W. Anstey Giles, Morgan, and Lendon; and specimens were shown by Drs. Giles and H. Newland.

Dr. TODD showed W.S., æt. 32, the man upon whom he had operated 2½ years ago for ruptured duodenal ulcer. At the time of the operation the duodenum was noted as contracted from cauterial tissue, but a gastro-jejunostomy was not done owing to the patient's condition. For two years he took ordinary food without pain and without vomiting. Lately, however, he has been suffering pain an hour or so after meals, has been occasionally sick, and has passed blood by the motions. He has an exquisitely tender spot below and to the right of his ensiform cartilage. Dr. A. A. Hamilton, whose case he is, recommended a gastro-jejunostomy, which Dr. Todd did with Dr. Newland's help. The man made an excellent recovery, and now takes ordinary food. During his stay in hospital he had violent bleeding from the stomach, from which it almost seemed that he would die. Whether this came from defective stitching, or from his duodenal ulcer, it is hard to say, but probably the latter. This case is recorded in *AUSTRALASIAN MEDICAL GAZETTE* of April 20th, 1907.

An apology was received from Dr. Hone, who was to have read a paper.

A resolution was passed in favour of Val de Travers asphalt in preference to woodblocks (from the hygienic point of view) for re-paving the streets of Adelaide.

Dr. REISSMANN proposed a scheme for a new medical subscription library. Referred to Council.

Dr. W. A. VERCO then read a paper on "Opening the Posterior Cul-de-sac." (See p. 392.)

Dr. LENDON said that he was in general accord with what Dr. W. A. Verco had told them. As regards the diagnostic value of posterior colpotomy, Pryor said, if he remembered aright, that no examination of the pelvis was complete without it. After abdominal sections he used it frequently for drainage; sometimes after operating by this route he kept the wound open with a strip of gauze, but he avoided plugging the opening, and he seldom attempted to stitch it. The operation had its disadvantages for those who, like himself, possessed a short finger; ligaturing the vessels in the confined space at command, more especially in nulliparæ, was often difficult; once he had been obliged to open the abdomen on account of bleeding; leaving hæmostatic forceps on for a few hours, however, overcame this difficulty, and assisted drainage.

Dr. J. A. G. HAMILTON said:—(a) For diagnostic purposes there is no denying the value of opening the posterior cul-de-sac. All forms of pelvic inflammation and adnexal disease can be diagnosed from this incision: pelvic inflammation, collections in the broad ligaments, pyosalpinx, hydrosalpinx, cystic or apoplectic ovaries, ectopic gestation, ruptured or unruptured, a ruptured vermiform appendix, which has leaked into pelvis. I have recently opened an abscess in Douglas's pouch, which was apparently formed by a ruptured duodenal ulcer. As compared with abdominal incision, it is much safer. In abdominal operations many layers are cut through, and a good deal of traumatism and a good deal of shock is produced, and there is always the danger of infecting the clean peritoneum. Mural abscesses, hernia, intestinal adhesions, adhesions between scar and viscera result often from abdominal incisions. While in the vaginal incision there is

no danger of hernia, little or no shock, only two layers are separated, the vaginal wall and peritoneum; there is no possible risk of wounding any important structures, as the finger or blunt forceps or scissors do the operation after the vaginal mucosa is separated. I have the greatest confidence in the posterior cul-de-sac incision, and have used it in some hundreds of cases. I was one of the first, if not the first, to use it in Australia, having used it in some half-dozen cases before Pryor's little book on "Pelvic Inflammation" came out in 1897. It is very generally used in America and Australia, but, strange to say, it has not gained ground in England. At a recent meeting of the British Gynaecological Society the vaginal *versus* abdominal incision was discussed; most of the speakers expressed themselves against the vaginal incision, as they were afraid of infection from the vagina and were afraid of wounding bowel in Douglas's pouch. Both these objections are purely mythical. Surely the vagina can be disinfected as well as the abdominal wall, and even if there is infection, which there occasionally is from both incisions, the vaginal incision from its position gives good drainage, while there is none from the abdominal incision. If the operation is properly done, there is very much less risk of wounding bowel from the vaginal incision than from the abdominal one. British gynaecologists are notably conservative, or I can only think they have not given a fair trial to this route for dealing with pelvic lesions. (b) In acute inflammatory troubles when there is acute septic endometritis, from whatever cause it may arise, after milder measures have failed, i.e., curettage, washing out and packing uterus, etc., if the temperature and pulse still keep, and the patient's general condition has not improved, I generally open the posterior cul-de-sac. This only takes a few minutes, and even if pus is not found, very often a quantity of serum or flakey lymph is found. This serum has been found to contain micro-organisms. I then put my finger in behind the uterus and behind the broad ligaments and examine the adnexa. If the organs are found matted together, as they frequently are, I break down the adhesions, then open up the lymph spaces and allow the escape of the lymph, which is probably in the first stage of suppuration. It is really marvellous how cases improve after the cul-de-sac is opened, even if no pus is found. As Pryor says: "You get there in front of pus and give the lymphatics an opportunity of emptying themselves." Time will not allow one to quote cases, but I could quote dozens of cases where this little operation has been followed by an immediate abatement of serious symptoms. Of course, I admit there are a great number of cases of puerperal sepsis, where the poison seems to be carried straight into the circulation, and does not locate itself in the pelvis. In these cases, of course, we cannot expect the same result from the vaginal opening. When you have an elastic mass bulging into Douglas's pouch, or in one or both lateral fornices, there can be no doubt about the proper treatment: you open and drain in the most dependant part, as you would in any other part of the body, but in some cases of pelvic inflammation a diagnosis of pus from palpation is impossible to make. The whole roof of vagina is a hard unyielding mass; the uterus, tubes, ovaries, omentum, and intestines are all matted together, giving no sense of fluctuation; in these cases an incision into Douglas's pouch often discovers pus in the pelvis or in one or both tubes, and even if pus is not found serum and lymph is found, which would eventually become purulent. I never use an aspirator needle in these cases, as I consider them unnecessary and dangerous; unnecessary, because I take it these cases require exploration and drainage whether pus is found by a needle or not; dangerous,

because I should be afraid of a needle wounding important viscera, or large blood vessels. In all operations on woman, where drainage is indicated, Douglas's pouch is the proper place to get it, whether it be connected with the pelvic organs, appendix, duodenum, or stomach, as being the most dependant position when the patient is in Fowler's position. If the drainage after abdominal section is required the vaginal incision is very useful. I pack the pelvis with wide strips of iodoform gauze and bring the end out through Douglas's pouch. The gauze is pulled down a few inches each day and removed altogether on the third or fourth day. If this is not done it will act as a plug and retain discharges in the pelvis. Some operators look upon drainage as a sign of weakness, but I feel much happier with a drain in Douglas's pouch for a few days if there has been any escape of pus, or if there is a large area of raw surface left. Often when there are densely adherent tubes and ovaries, the sero-muscular coat of bowel is accidentally stripped or injured. In all these cases a gauze pack does no harm, and allows of the escape of any infected material. The removal of diseased ovaries or tubes through Douglas's pouch is, I think, a highly dangerous proceeding, as in pulling on the ovary you are very apt to tear the ovarian vessels above the ligature and have fatal hæmorrhage. These organs are better removed by abdominal incision, when you can see what you are doing and inspect the appendix and other viscera. Pryor's operation for retro-displacements by packing Douglas's pouch with gauze has never appealed to me, although one must respect everything coming from the pen of such a distinguished operator.

West Australia.

THE ordinary meeting of the West Australian Branch was held at Perth Public Hospital on Wednesday, July 17th, 1907. Present: Dr. Trethowan (President) and Drs. Cleland, Hill, Ramsay, Officer, Ambrose, Flecker, Seed, Blackburne, Rigby, Couch, Thorpe, Tymms, Randell, Martin and Teague.

Minutes of previous meeting read and confirmed.

Dr. RANDELL showed a chart of a typhoid patient in 16th day of disease. The interesting feature was that in an otherwise normal case there were frequent rigors occurring for which no satisfactory explanation could be given.

Dr. BLACKBURNE read a paper on "Dealing with Diphtheria." The paper was a very interesting one, and dealt with the disease from the public health rather than the clinical aspect. He showed that whereas in the other zymotic diseases there was a great decrease in the death-rate, in diphtheria the reverse condition obtains. It was also shown that in the prevention of the disease the ordinary means of isolation and disinfection had proved ineffectual. That infection is generally indirect and that people might act as carriers of the diphtheria bacillus long after being apparently well, or even without having had it at all, and that the bacillus might be passed through several intermediaries before finding one in whom the disease itself occurs, and that in this way most cases of infection occur. Statistics of the examination of large numbers of school children were given, showing that very many apparently healthy children were carrying the Klebs-Loeffler bacillus in their throats. It was pointed out that logically in treating an epidemic these carriers of infection should be sought out by bacteriological examination and isolated and treated.

Dr. CLELAND offered his congratulations to Dr. Blackburne for his very able and interesting paper. The method advocated appeared to be a very rational and successful method of dealing with an epidemic.

He referred to the difficulty of placing certain bacilli which were intermediate in character between the Klebs-Loeffler and the Hoffman bacilli.

Dr. TYMMS remarked in this latter connection that in certain cases recently in the hospital the bacteriological report was of Hoffman's bacillus, and yet the cases had subsequent paralysis.

Dr. RAMSAY asked concerning the virulence of these intermediate bacilli, and Dr. Blackburne replied that that question was not yet settled.

Dr. TRETOWAN had never quite believed in the drain theory, but the idea of several apparently healthy intermediary hosts was new. He thought that perhaps the increased prevalence was more apparent than real owing to better diagnosis and to croup now being known as diphtheria. He thought it better to use antitoxin more frequently than was the custom even in ordinary ulcerative tonsillitis. He suggested that perhaps compulsory inoculation would be valuable as a preventive—on the same lines as vaccination in smallpox.

Dr. COUCH suggested the possibility of diphtheria becoming again dormant for a period to break out again later like influenza.

Dr. BLACKBURNE replied.

Queensland.

The ordinary monthly meeting was held on Friday, August 2nd. Present: The President (Dr. Wilton Love), Drs. Turner, Gibson, McLean, Foxton, Jackson, Doyle, Carvosso, Eleanor Bourne, Espie Dods, Halford, Hirschfeld and Spark.

The PRESIDENT apologised for the unavoidable absence of the Hon. Secretary (Dr. Brockway).

The minutes of last meeting and correspondence were held over in the absence of the Hon. Secretary.

Dr. MCLEAN read notes of a "Successful Case of Abdominal Hysterectomy for Cancer under Stovaine Anæsthesia."

Dr. JACKSON opened a discussion on "Appendicitis."

Dr. W. S. BYRNE said:—The main question around which our discussion revolves is when to operate in appendicitis. On looking back over the many years I have been in practice it has been my lot to have seen many cases treated in the old days on the expectant plan. I have seen cases of abscess allowed to discharge into the bowel, some of them thus spontaneously cured, and others of the same kind who died after weeks of sepsis. I have seen numbers of cases which never came to abscess formation, and who went through a pretty severe illness but who recovered and are hearty individuals to-day. This, of course, was in the pre-operative days. To narrow down the issues, it might be well to state where we are all pretty well agreed and where our views commence to diverge. To do so it is necessary to divide the cases into two great groups, viz., the acute and chronic, and to further subdivide them into mild and severe. Taking the mild chronic cases first, it may be well to explain what I mean by the term. It is presumed that one's diagnosis is correct and a patient suffers from one or two attacks which lay him up for, say, three or four days, the pain being possibly very severe, but the pulse rate and temperature remaining low. Such cases ought to be watched, but numbers of them never have another attack, and operation is not necessary. From this type we pass by insensible gradations to the severe chronic group. A patient suffers from irregularly recurrent attacks with or without temperature, which quite incapacitate him from following his usual work. This class requires operation for two reasons—firstly, to enable the individual to earn his livelihood, and, secondly, to prevent the occurrence of an acute attack,

which may eventuate at any moment. In fact, the old rule stands good that in the case of a patient who has had three attacks of moderate appendicitis operation is called for. I think so far we all agree, but it is in the acute cases, both mild and severe, that our opinions begin to diverge. What I term mild acute cases are those which we as medical men see as a rule on the third or fourth day of the illness, with a temperature varying between 101° to 103° and a pulse rate of 112 to 120. This group usually eventuates either in resolution or abscess. If an abscess forms it is our duty to wait until one is fairly sure of the presence of pus and then to open it, after which we seldom or never hear of the appendix again. I would always recommend waiting until the abscess is quite shut off from the general peritoneal cavity. Should resolution occur, then when all acute symptoms have subsided appendicectomy should be performed, although one may not be sure that a second attack must occur, for this type of case is particularly liable to develop a very severe phase of the disease later on. Severe acute cases, which commence with rigors, high temperatures, quick pulse, and general distress, are the group which will tax our mental resources to the uttermost in the problem as to what is the wisest course to pursue for the good of our patient. As a general rule I would strongly recommend that acute cases should not be operated upon—at least at the beginning of the attack. We who have seen in the pre-operative days many cases of acute typhlitis know that under the old *regime* of linseed poultices and opium few indeed died; in fact, I cannot remember ever seeing one of those fulminating gangrenous or perforative cases which kill in 48 hours, and I would appeal to the older members of the profession for their experience on this point. Although most of those acute cases recovered under the poultice and opium treatment, many of them were not cured though they were able to do their usual work with some inconveniences. How many lives have been lost through hasty operation on acute cases it would be interesting to know. We are none of us very keen about publishing our mistakes, but we hear—in fact, we know—of numbers of acute cases operated upon early, and a few days after an obituary notice appears in the press. It is not difficult to understand why this is so. An acute case, in which the question of operation is raised about the third or fourth day, is one in which usually we would expect to find either an abscess commencing or a serous fluid surrounding the appendix alive with streptococci, or possibly a small perforation or gangrene. Now the peritoneum is too good a watchdog to allow abscess, gangrene, or perforation to occur without preparing for the danger which is coming along. Those who have much experience of abdominal work know how soon peritoneum shuts off a drainage tube from the general cavity; why 12 to 24 hours will do it. While in acute appendicitis the peritoneum is performing this duty, while peritonitis is in progress to wall off the infection from the cavity, why is interference justifiable? The surgeon, if he operates, breaks down all the new, fresh protective adhesions, removes the appendix, probably distributes the pus or streptococci all over the cavity of the peritoneum, puts in a drain and provides a crown of glory for his patient. I do not agree with the dictum of many that it is always better to operate on all acute cases in case gangrene or perforation might occur. Gangrene or perforation is of very rare occurrence; it does not happen all in an hour or 12 hours, and when it does occur the peritoneum can be trusted to wall it off from the cavity in a large proportion of instances; and even in those cases in which general peritonitis occurs early, or in other words where the peri-

toneum is not able to ward off infection, operative measures in the majority prove futile. A friend of mine who was travelling out here via the States of America was warned by his physician, a leading man in London, that while he was in America, even if only for a few days, not to complain of stomach ache, for if he did so he would probably remain there for some weeks and leave minus his appendix. The fashion of late has been to operate early on all acute cases, and this procedure I wish earnestly to oppose. Although the peritoneum is the most tolerant of all the structures of the body whilst it is clean, let active pus organisms obtain an entrance and you can look out for trouble. One may operate on those kind of cases, and after a narrow squeak the patient recovers and the surgeon wears a wreath of vine leaves; when he dies, mutterings of gangrene, perforations, peritonitis, and various other explanations ensue, according to one's fancy. When we consider that in good hands the mortality rate of appendicectomy performed in the quiescent stage hardly reaches 2 per cent., and the small mortality rate from acute appendicitis *per se* when let alone, when we consider the large mortality in the perforative or gangrenous appendicitis when operated upon, my experience leads me to counsel caution in approaching acute cases. Operate in the interval, open abscesses when they form, provided that you are sure that the peritoneal cavity is shut off, but in all acute cases it will be found prudent to wait—you will save yourself much anxiety, and I am sure in the long run your mortality rate will be smaller.

The PRESIDENT agreed with the previous speakers as to the change in type of the disease. What had brought about the change from the perityphlitis of our student days to the gangrenous appendicitis of to-day was more than a matter of improved diagnosis, but whether it was due to influenzal influences or to the greater strenuousness of the life of to-day with its rapid meals, its counter lunches, etc., was still an undecided question. He instanced cases of appendicitis where pain had been referred to the left side, and to others where the pain was trifling though the case was serious. The position of the appendix had much to do with the character of the symptoms, those cases with the appendix situated in the enteronic area and in the pelvis being most likely to give rise to suppurative peritonitis. He described the pathological changes found in microscopic sections of the appendix in various stages of inflammation, pointing out that suppuration might occur outside the appendix, while that organ was found macroscopically intact at the time of operation. Lockwood had stated that 16 per cent. of cases going on to abscess formation had further attacks, but in his experience the proportion was considerably higher. He was consequently in the habit of advising removal of the appendix four to six weeks after evacuation of the abscess, as the practice not only got rid of the damaged appendix, if it should have escaped destruction from the suppuration, but also gave opportunity for excision of the scar and repair of the hiatus in the abdominal wall left by the drain tube. It was remarkable how few and slight the adhesions had then become. The policy of perfection was, of course, removal of an inflamed appendix during the first 24 to 36 hours, but this was not always possible, especially in private practice; but he operated with reluctance on the third, fourth or fifth day unless the case were obviously getting worse. The vexed question of removing the appendix in all cases of abscess he considered should be answered by the condition of the parts at the time of operation; if it could be removed without disturbing the barrier of adhesions unduly it was right to remove it, but not unless. In the case of the appendix dipping into the pelvis in women, he

strongly urged the wisdom of draining the peritoneal cavity through Douglas's pouch coupled with the Fowler position. He welcomed Murphy's irrigation and drainage method as a great advance in the treatment of general suppurative peritonitis.

Dr. TURNER referred to two points he had learned of late. Firstly, as to the medical treatment of appendicitis—Osler's axiom notwithstanding—he referred to Moynihan's recent article advocating the avoidance of purgation (purgation and perforation being often cause and effect) and absolute starvation of the patient, water even being withheld by the mouth, till the inflammation had begun to subside; thirst being relieved by saline enemata. Secondly, as to the wisdom of not waiting too long after an acute attack before removing the appendix before the adhesions had become too dense. He instanced a case where the appendix was removed on the ninth day and the adhesions were found recent and easily broken down.

Dr. HALFORD considered that the adhesion in Dr. Turner's case might have been still more absorbed by waiting for four or five weeks. As to recurrence after abscess, he considered that cases with extensive suppuration which were slow to heal were less liable to recurrence than cases which healed up quickly, as the destruction of the appendix was more likely to be complete in the former.

Dr. HIESCHFELD had seen many cases with symptoms of general peritonitis present where one thought operation should be performed which recovered without operation.

Dr. MCLEAN commented upon the different class of cases met with now compared with that of six years ago; gangrene and perforation being much more common now than formerly. He was struck by the frequent absence of pain even when gangrene was present, and denounced the practice of giving morphia as masking the symptoms. He considered the question of the time of operation to be really a matter of proper drainage, and was inclined to agree with Dr. Jackson that a case might be operated on at any time if the drainage was strictly attended to. He instanced cases where Fowler's position and continuous irrigation through the rectum, combined with proper drainage, had been eminently successful.

Dr. SPARK enquired how, in the absence of pain and general symptoms, could the diagnosis be made? Dr. McLean replied by tenderness, rigidity of rectus, and vomiting.

Dr. ESPIE DODS instanced a case seen yesterday where the temperature was 99° and the pulse 80, but 12 hours later the appendix was found gangrenous on operation.

Dr. ELEANOR BOURNE related a case of appendicitis where trichocephalus vornis were found in the lumen of the appendix.

Dr. DOYLE was struck by the divergent views held by the different speakers, and thought much of this due to modification of the type met with. He had seen many cases recover without operation, and many disastrous results after operation, probably due to differences in type of the disease.

Dr. SPARK remarked on the change in type of the disease, and said it was most striking how many cases with phlegmon got well without operation. It was noticeable how cases had increased since the advent of influenza in 1892.

Dr. JACKSON replied that where the diagnosis was uncertain much valuable time might be lost by not operating and in waiting for grave symptoms to establish the diagnosis. He remembered cases of long standing suppuration lasting for months which might have been saved a long illness by early operation. Pro-

per drainage was the key to the whole question of when to operate, and he was prepared to operate on any case, not hopeless, relying upon his ability to drain properly. He believed in starvation, in the moderate use of opium, and in the withholding of purgatives. He considered adhesions might grow dense by waiting from four to six weeks after an acute attack before removing the appendix.

Dr. BYRNE made an appeal to the members on behalf of the wife and children of a medical man who was at present unable to support them, and invited subscriptions. Members present thought the case a deserving one for assistance.

OBITUARY.

ANDREW SEXTON GRAY, M.R.C.S. (Eng.),
1854, Melbourne.

We regret to record the death of Dr. A. S. Gray, at the advanced age of 81 years. We are indebted to the *Age* for the following particulars of his life and work:—Andrew Sexton Gray was born at Limerick in 1826, being the only child of George Blanchard Gray, captain in His Majesty's 67th Regiment. His medical education was obtained at St. Stephen's, Jervis-street, and St. Vincent's Hospitals, Dublin, and his special study of ophthalmology was made at St. Mark's Ophthalmic and Aural Hospital. He acted as assistant at this hospital to the late Sir William Wilde, the famous aurist. In 1854 he became a member of the Royal College of Surgeons of England, and a licentiate of the Rotunda Lying-in Hospital, Dublin. He shortly afterwards accepted an appointment as surgeon-superintendent under the emigration commissioners, and for some time was engaged in this service, during which he made several voyages to Australia in charge of emigrants. In 1862 he commenced practice in Victoria, and was medical officer to the workmen engaged in the construction of the Geelong to Ballarat railway. On the completion of this work he came to Melbourne, and gave himself up to the special practice of the ophthalmic and aural surgery. He took a keen interest in the medical institutions of the city, and, together with Dr. Aubrey Bowen, founded in 1863 the Victorian Eye and Ear Hospital, which for some years he conducted entirely at his own expense, admitting only the poor and the needy. In 1868 Dr. Gray was appointed surgeon for life to the hospital, which had then become a public institution. It has since steadily developed into one of the most successful of our medical charities, and will never cease to be honourably associated with the name of Dr. Gray as its founder. The deceased gentleman has ever stood high in the estimation of his professional brethren. In 1880 he was elected president of the Medical Society of Victoria. During his long residence here he has become associated in an honorary capacity with many charitable institutions, and at the time of his death was honorary surgeon to the V.R.C and V.A.T.C. His connection as honorary surgeon to the Melbourne Benevolent Asylum began in 1865. The Victorian military forces owe deep gratitude to the late Dr. Gray, who as one of the earliest of military surgeons in this State rendered sterling service over an extended period. Dr. Gray is survived by his widow, who was the eldest daughter of Dr. George Wm. McNulty, of Dublin, and by whom he had a large family of eight daughters and one son, a dentist, practising in Melbourne. Mr. T. J. Davey, president of the Eye and Ear Hospital, writes:—"I have before me a pamphlet issued in 1866 by the Melbourne Institution for Diseases of the Eye and Ear,

101 Spring-street, opposite Parliament House (removed from Albert-street), setting out its origin and progress, which commences:—"This institution was commenced in 1863 at No. 2 Albert-street by Mr. Gray on his own responsibility, and has since been carried on at his own risk"; and contains an appeal to the public for funds to carry on its then increasing usefulness, and concludes by saying:—"By the energy and persevering charity of Mr. Gray a sound nucleus for a future public hospital of this kind has been formed, and it would be well if means could be found to extend the sphere of usefulness of the present institution and to perpetuate its usefulness." That pamphlet was signed by the Rev. James Mirams, in his capacity as hon. secretary and treasurer. Dr. Gray commenced his hospital as a purely charitable institution very shortly after he settled in Melbourne (with two beds only), and it gradually increased in size, every expense, including rent, furniture, medicine and maintenance being defrayed out of his own private purse. It was in this institution that the Rev. James Mirams received the treatment mentioned by Mr. James Mirams in his letter, and it was after his recovery that, owing to the increasing scope of its operations and usefulness, at Dr. Gray's suggestion a committee was formed to solicit and collect public subscriptions, and the Rev. Mr. Mirams was appointed its first hon. secretary and treasurer, and later president, and he continued to take a great interest in the affairs and management of the institution, rendering great assistance."

LOUIS VALLEE, L. et. L. Mid., R.C.P. et. R.C.S.
(Edin.), 1884, Inverell, N.S.W.

We regret to record the death of Dr. L. Vallee, which took place from acute pneumonia on July 24th. Deceased was extremely popular. He was a native of Locquille, Paris, 56 years of age, and came to Inverell over 30 years ago as assistant to the late Dr. Segol. Subsequently he went home for a short period, and took his degree. He returned here and practised his profession ever since. He was visiting medical officer to the Inverell Hospital the whole of that time. He leaves a widow, but no family.

Dr. Ludwig Bernstein, M.D. (Heidelb.), 1864, who practised at Lismore, N.S.W., for 27 years, and was one of the most prominent public men in the history of the town, died on August 3rd. He was 70 years of age. Flags were all half-mast in the town on Saturday. The funeral on Sunday was largely attended. The interment took place in the Roman Catholic cemetery, Bishop Doyle conducting the services at the church. Five ex-mayors and the present Mayor acted as pallbearers.

The death is reported of Dr. E. W. Alexander, M.R.C.S. (Eng.), 1853, L.R.C.P., 1862, a well-known physician in Dunedin. During his residence in Dunedin, Dr. Alexander, in addition to practising his profession, took some interest in public and company matters, and was one of the founders of Ashburn Hall, where his son, Dr. E. H. Alexander, is the resident surgeon.

News has been received in Melbourne of the death of Dr. J. E. Williams on June 1st in the Famine Relief Hospital at Chin Kiang, China. Dr. Williams was associated with Dr. Cox in caring for the sufferers who were ill on account of starvation, and he contracted typhus fever while tending the sick. Dr. Williams married some years ago a young lady—Miss Lloyd—who went out from Melbourne under the auspices of the Victorian branch of the China Inland Mission.

REVIEW OF CURRENT MEDICAL LITERATURE.

GYNÆCOLOGY AND OBSTETRICS.

Chorea during Pregnancy.

Shaw (*Journal of Obstetrics and Gynæcology of the British Empire*, April, 1907). Eleven cases of chorea of pregnancy are reported from the practice of St. Mary's Hospital, Manchester, in this communication. The first two cases were treated on traditional lines with most unsatisfactory results. It was then decided to try a totally different, antitoxæmic treatment (first suggested by Fothergill), by which the patients were put on a milk diet and elimination was increased. In nine cases so treated the best results were obtained. The idea underlying the experiment was that the toxæmia of pregnancy lowers the resistance of the nervous system and puts it in a state of heightened irritability, so that it responds to stimuli, chemical, emotional, etc., which would not otherwise produce any result perceptible by ordinary clinical methods of observation. A general review of the literature is given, and the 11 case reports are given in detail. Based on the hypothesis above stated, the treatment aims at (1) removing the predisposing cause; (2) removing the determining cause; (3) treating the symptoms if necessary. The nine successful cases were, therefore, treated in the same way as other toxæmias of pregnancy—i.e., hyperemesis, eclampsia, etc. The patients were kept in bed; their diet was restricted to milk until they showed signs of improvement, when milk foods were allowed, fish and chicken being added when the choreiform movements had practically ceased, and ordinary diet when they had been quite free for some days. Elimination was increased by acting on the bowels by means of jalap, and on the skin and kidneys by a simple saline mixture. Every patient under this treatment showed signs of improvement in a few days, improvement progressing gradually until finally each was discharged from the hospital cured. In no instance had hypnotics to be administered while the patients were under eliminative treatment, natural sleep generally occurring on the second or third night, although loss of sleep was one of the most distressing symptoms of every patient. Induction of labour seems to be strongly contraindicated by the results of these cases, the two patients in whom labour was induced having died, and also the children, while the remaining nine completely recovered, with good results to the children. Thyroid extract was given freely to five patients, with good clinical results; but definite chemical results could not be obtained from four of these patients, as it was impossible to collect all the urine. In the fifth patient the urine was measured, and the total output of urea estimated daily—one day when the patient was without extract and ten during which it was administered. For the first five days diuresis and output of urea steadily increased, then just as steadily decreased, although the same dose was administered, viz., gr. 30 daily. Charts were prepared from several eclamptic patients treated with thyroid extract, but in no instance could it be definitely concluded that thyroid had increased elimination. Therefore the last four patients were treated exactly as the preceding five, except that no extract was administered. These patients, without, recovered quite as rapidly as the others with thyroid extract; so it would appear that the extract does not play an important part in the treatment. Shaw's conclusions are:—1. The chorea of pregnancy, like other choreas,

is due to a toxin which appears to be identical with or closely to resemble that of acute rheumatism. 2. It affects human subjects under two circumstances, both of these being characterised by instability or irritability of the nervous system, namely, childhood and pregnancy. 3. The cause of the instability or irritability of the nervous system in pregnancy, bringing it down to the level of childhood, is the toxæmia of pregnancy. 4. In the chorea of pregnancy, therefore, it is more important to remove the predisposing cause than to apply merely symptomatic treatment. 5. The treatment must be eliminative, as in the other toxæmias of pregnancy. 6. The pregnancy should not be arrested as a rule, as this is unnecessary and harmful to the patient as well as to the child.

Acetonuria in Ectopic Gestation.

Baumgarten and Popper (*Wiener klin. Wochenschrift*, No. 13, 1906). The presence of acetone in the urine was constantly found in all cases of ectopic gestation associated with pelvic hæmatocele. The authors consider a persistent absence of a pathological amount of acetone negatives a diagnosis of ectopic pregnancy in cases where a soft, fluctuating swelling occupies the posterior *cul-de-sac*, even with a clinical history pointing to extra-uterine gestation. The constant presence of an increased amount of acetone in the urine is valuable in the differential diagnosis between pelvic hæmatocele and cystic tumours of the tube or ovary, pointing strongly to the former. This conclusion is based on the observation of several cases which were subsequently submitted to operation.

Post-partum Ovariectomy.

Kynoch (*Edin. Obst. Trans.*, vol. 31, 1906). The author premises his paper by stating that it is agreed that when an ovarian tumour is found complicating pregnancy it should be immediately removed, and remarks on the safety to the mother and the beneficial results to the child by early operation. His object in reporting in detail three cases of ovariectomy during the puerperium is because the subject has received scant attention compared with its performance during pregnancy and labour. Although it is undeniable that pregnancy, labour, and the puerperium may be safely passed through in the presence of an ovarian cyst, yet the dangers of pedicle torsion, rupture and suppuration of the cyst are especially prone to occur during the puerperium, thereby increasing the risk to the patient. Labour being one of the commonest causes of suppuration of the cyst, whether arising from genital tears or of intestinal origin, accounts for its frequency during the puerperium. Gelter reported 21 cases where, after normal labours, suppuration of the cyst was followed by fatal peritonitis. Gottschalk has emphasised the importance of the bacillus coli as setting up infective changes, with resultant suppuration and gas formation. The chances of pedicle torsion are greater during the puerperium, because of the laxity of the abdominal wall allowing freer mobility of the cyst and the lowering of the abdominal pressure at the time of emptying the uterus. As a consequence of the frequency of infective changes in ovarian cysts during the puerperium, most cases of the kind have been mistaken for puerperal sepsis, resulting almost invariably in the death of the patient. Aust. Lawrence records ten such cases sent to hospital diagnosed as puerperal peritonitis. The first two of the author's recorded cases—one of suppuration and the other of gangrene of the cyst—show how imperative, immediate operation becomes in a puerpera exhibiting unfavourable symptoms in the presence of an ovarian tumour. The third case shows

that in the absence of unfavourable symptoms, operation may be advantageously delayed until the patient is convalescent.

Urethral Bacteria as a factor in the Aetiology of Cystitis in Women.

Taussig (*Amer. Jour. of Obstet.*, October, 1906). With the object of determining if the female urethra normally contains organisms capable of producing cystitis, the author has studied the urethral secretion of 50 cases in women who were free from any disease of the urinary tract or acute pelvic inflammation. Attention is drawn to the fact that Baisch found that perfectly healthy women after being confined to bed for several days showed an increased number of pathogenic germs in the urethra. The author therefore divides his cases into two groups—(a) ambulatory cases, (b) cases confined to bed. The urethral orifice and vestibule were cleansed with sterile cotton, and a platinum loop used to obtain smears from the urethra, about $\frac{1}{2}$ cm. above the orifice, care being taken to avoid contact with the edge of the meatus. Agar plates were used for inoculation, and the recognition of colonies limited to streptococcus, colon bacillus, staphylococcus albus and aureus, which Brown and Baisch have shown to be the cause of most catheter infections in women. The results were as follows:—1. The urethra was found sterile in 8 out of 45 cases. The staphylococcus albus was the most frequently found micro-organism, being present in more than half the cases, whereas the colon bacillus was only isolated in three cases and the streptococcus twice. 2. As proving that the urethral bacteria are actually carried into the bladder by the catheter, the bacteriological findings in the urethral secretion and the catheterised urine were identical in six out of eight cases. Cultures from the urethra and from the catheterised urine were sterile in the remaining two cases. 3. Irrigation of the urethra with boric solution removes a large proportion of bacteria. 4. The author advocates the use of the ordinary glass catheter, and in cases where repeated catheterisation becomes necessary, irrigation of the urethra as a preliminary measure and subsequent irrigation of the bladder with boric lotion, and the internal administration of urotropin, as a prophylactic against catheter cystitis.

Temperatures occurring during the Puerperium.

Ryder (*Surgery, Gynecology and Obstetrics*, January, 1907). The commoner conditions causing rises of temperature in the puerperium are discussed, with illustrative temperature and pulse charts. The causes considered are:—1. The reactionary temperature. This corresponds to the reactionary post-operative temperature, follows long and difficult labours, and is probably due to lowered resistance of the body. During the first 24 hours the temperature rises from 101° F. to 103° F., but rapidly drops to normal. 2. Temperature from distended breasts. This takes place on the third or fourth day, when the milk suddenly distends the breasts. While many authors deny the existence of milk-fever, the writer considers that sudden distension of the breasts is so often accompanied by pyrexia, where there is no suspicion of sepsis, that the distended condition of the mammae is undoubtedly the cause of the rise. 3. Temperature due to mastitis. This occurs on the eighth day or later, is often preceded by a chill, and the temperature rises from 101° F. to 104° F. Previous distension of the breast or a fissured nipple will usually be found as a predisposing cause. 4. Temperature due to pyelitis. Occasionally an

irregular temperature of 101° F. to 104° F. occurs after delivery. Examination shows uterus, lochia and mammae are normal. Complaint is made of pain over and tenderness of the kidney (usually the right). The urine is acid, contains pus-cells, and bacteriological examination reveals the bacillus coli communis. 5. Temperature due to puerperal toxæmia. The author does not mean toxæmia arising from defective liver or kidney action, as in eclampsia or albuminuria, but uses the term to include those cases in which there is an absorption of toxins from the uterus during the puerperium. Some of these toxins are of distinctly pyrogenic origin, and some are of putrefactive or saprophytic origin. The condition is purely local, confined to the uterus, and the pyrexia is caused by absorption of toxins (sapræmia). These are subdivided:—(i) Temperature from simple retention; the uterus is large and soft, the lochia scanty and foul; there are few constitutional symptoms; there is retention of some portion of the secundines in the uterus. (ii) Temperature from ante flexion or retro flexion of the uterus. The author states that during the latter part of the puerperium temperatures may occur from lack of drainage due to uterine flexions. The symptoms occur when the patient first begins to get up from bed. (iii) Temperatures from excitement. Sudden mental shocks, e.g., grief or pain, are followed at times by a rise of temperature. 6. Temperature due to bacteriæmia. By "bacteriæmia" the writer refers to infections due to bacteria themselves, which have escaped from the uterus and are found in the tissues outside the uterus or in the general circulation. Under this heading he considers cases of septicæmia, localised infections outside the uterus (salpingo-oophoritis and pelvic cellulitis), and phlegmasia alba dolens. He concludes by advocating a careful systematic routine examination of each individual case to discover the cause of any elevation of temperature during the puerperium. Prompt treatment will save most patients, for only in the severe and rapidly-spreading infection is it of no avail. Lacerations of the soft parts, hæmorrhage and sepsis are the three dangers to which a woman in labour is exposed. The most dangerous of these is sepsis and, therefore, asepsis cannot be too rigid. He especially advocates attention to cleansing of the patient's vulva as of equal importance as the cleanliness of the obstetrician's hands. "Careful asepsis, a uterus empty at the end of labour, and conscientious repairs of recent lacerations (avenues of infection) will make sepsis rare. Hæmorrhage can be stopped, lacerations may be sewn up, but sepsis must be prevented."

OPHTHALMOLOGY.

Some Injuries to the Eye following Subconjunctival Injections of Salt Solution.

By Dr. L. Alexander, Nuremberg (*Knapp's Archives of Ophthalmology*, Jan., 1907). Alexander first refers to the subconjunctival injections of perchloride of mercury so much employed a few years ago, from which so much was expected, and which was so extensively employed in the most diverse forms of eye disease. In a short while, however, the enthusiasm died out, and finally it was discovered that not only were there many cases in which no results were attained, but a large proportion of injurious effects were observed, and (in Germany, at least) the use of perchloride in this way has been largely abandoned. Not only were the injections often badly borne, so that eyes thus treated remained in an irritable condition after complete cure of the condition for which treatment was instituted, but adhesions were noticed between the bulbar con-

conjunctiva and the sclera at the points of injection. When proof was lacking that the perchloride reached the interior of the eye to act there as a disinfecting agent, and when it was shown that it acts upon the lymph currents by exciting currents of diffusion, which are, however, slight, since the larger part of the perchloride is changed into an insoluble albuminate of mercury in the tissues, and when we have a much more valuable lymphagogue in common salt, there is no excuse or justification for persisting in the perchloride injections. Subconjunctival injections of common salt were first recommended by Rothmund in 1866, but afterwards the method fell into disuse. Its use was revised by Mellenger in the Basal Clinique. He has demonstrated that this is an extremely efficacious therapeutic agent. Two per cent. solutions were used in diseases of the cornea, and 4 per cent. and 10 per cent. solutions in diseases of the interior, as choroiditis, diseases of the vitreous, and detachment of the retina. The entire contents of a Pravaz syringe were used. When smaller quantities were used the results were less marked. According to Mellenger and Burri, the method has no disadvantages; no pain (when cocaine is previously instilled), only transient irritation, no adhesions between conjunctiva and sclera. Even after extensive use gangrenous patches never appear, as was sometimes observed after the use of perchloride. The observations of the Basal Clinique have since been confirmed by a large number of writers. Even in cases where more concentrated solutions (up to 20 or even 33 per cent.) were used the eye showed no ill effects.

Alexander then proceeds to show that there are exceptions to this rule by giving detailed descriptions of three cases. In the first of these numerous adhesions had formed between the conjunctiva and the sclera. In the second case, after the injection of a syringe of a 10 per cent. solution of common salt, carefully sterilised, the patient after a few hours became violently excited, and complained of severe pain in the eye and forehead. On the following day there was severe pain in the eye, conjunctival inflammation, photophobia, and lachrymation. Four days after the injection the lower part of the bulbar conjunctiva became chemotic, and afterwards gangrenous, and sloughed away. The lower part of the cornea became stippled, but there was no loss of substance, and peculiar changes made their appearance in the lens. Contrary to his expectations, the condition slowly improved, but the final note on the case was not made for three months. The bulbar conjunctiva was then still reddened and showed a few linear cicatrices. He naively concludes by remarking: "No more subconjunctival injections were made in this patient"! The third case showed, after the fourth, sixth, eighth and ninth injections, opacities of a peculiar kind in the lens, and the cornea became stippled. These observations were made in the third to fourth day after each injection. About eight days after the injection the changes disappeared.

Alexander has no doubt that in all these cases the results described were directly due to the salt injections. In the second case he was at first inclined to consider the corneal changes due to the excessive destruction of the conjunctiva, but this view was shown to be incorrect, since in case 3, with a normal conjunctiva the corneal changes appeared repeatedly. Ohlemann has recently called attention to dionin placed in the conjunctival sac as a substitute for subconjunctival injections of salt. Alexander does not think dionin can have the same value as injections, since the eye soon becomes accustomed to the dionin, and the

desired reaction can only be obtained after long intervals of rest, whereas the injections can be repeated every two or three days if the signs of irritation disappear rapidly.

Ante-partum Ophthalmia.

In the *Ophthalmoscope* for May, 1907, Rosa Ford publishes two cases occurring in the practice of Dr. Boxall at the York Road Lying-in Hospital, and at the meeting of the Chicago Ophthalmological Society in February, 1906, Dr. Nance reported a case of this condition. The first of these cases was a twin birth. The first child delivered had a yellow discharge from the right eye. Thirty hours after birth both eyes were affected, and both corneae were hazy, resulting in large permanent opacities. The second child's eyes never became affected. The mother was a primipara. The membranes ruptured 6½ hours after labour set in. Ten minutes later the first child was born. Twenty minutes afterwards a second bag of membranes was artificially ruptured, and five minutes later a second child was born. The mother had suffered from "whites" for six months previous to labour, and this discharge had become yellow two days before delivery. In the second case the child's eyes were suspicious at birth. Credé. Next day much inflammation of upper lids. Silver nitrate 10 per cent. (*sic*) solution used. Six days afterwards "sight slightly dim"; mother and child removed to St. George's Hospital, as eyes were not improving. Labour was at full time. There was some obstruction, due to seaming of the vagina; scar tissue divided to permit delivery; six examinations during labour. No douche before labour noted. Puerperal discharge unusually copious. In both these cases labour was comparatively short—7 hours and 10½ hours respectively. Ophthalmia was present at birth, so that infection must have reached the eyes before labour began. In each case the inflammation was in an early stage, so that infection must have occurred within the last week of pregnancy. Since the membranes ruptured ten minutes and one hour respectively before delivery, the micro-organisms had apparently penetrated the unbroken membranes. In such cases infection of the child's eyes can be supposed to occur in only three ways—(1) by passage of the micro-organisms from the walls of the uterus, or, possibly, in rare cases directly from the maternal circulation into the placental circulation, and thus into the liquor amnii; (2) through the membranes, which by reason of some injury permit the passage of the microbes; and (3) through the undamaged membranes; in the last two cases the infective agent being the vaginal secretion. In case 1 it is an argument against infection through the placental circulation that the second twin, equally exposed to infection by this method, remained free from ophthalmia. In favour of infection through the bag of membranes from a vaginal secretion is the fact that the infant whose bag of membranes lay directly over the cervix was affected, while the other at a safe distance escaped. There was nothing in the history of the case to suggest the possibility of injury to the membranes, so that we are obliged to believe that infection did occur through undamaged membranes. The writer refers to her former conclusion, and that arrived at by Sydney Stephenson, that apart from a possibility of some slight injury to the membranes, infection must be assumed to take place through uninjured membranes. The early stage of the ophthalmia in most of the recorded cases may be explained by the expansion of the cervix during the last few days of pregnancy allowing the vaginal secretion to reach the ovum.

In Nance's case the eyes were red and swollen, and discharging yellow matter at birth, the left cornea later becoming hazy. The discharge showed gonococci in abundance. The mother was a primipara; labour had been brief and easy; the membranes had ruptured one and a-half hours before birth. Nance is of opinion that the gonococci were introduced directly through the unruptured membranes, and that the ophthalmia was due to an endometritis of the same nature.

NEUROLOGY.

The Cerebro-spinal Fluid in Mental and Nervous Diseases.

Meyer (*Archiv. für Psychiatrie u. Neurologie*, Bd. 42, Heft 3, 1907) gives a comprehensive account of his own investigations into the condition of the cerebro-spinal fluid, and also gives a general view of the opinions held by other workers. He considers that it is settled that in all cases of definite tabes or general paralysis there is a condition of lymphocytosis of the fluid, together with an increase in the albuminous content; but in clinically doubtful cases of these diseases the cerebro-spinal fluid does not always help us to a diagnosis. His investigations extend over 100 cases in two years. He draws off 5-6 cc.m., and allows the patient to rest half an hour without a pillow, and never has any unpleasant results, except in cases of tumour, especially those of the cerebellum. He recommends examining the liquor fresh, with the addition perhaps of 1 drop of Löffler's methylen blue per cc.m. Normally, Meyer finds only 3-4 lymphocytes in the whole preparation, and perhaps none. He considers the fluid pathological when every "here and there" in the preparation one finds one or two lymphocytes. He regrets that we have no exact method of counting. Each investigator must for the present rely upon his own experience of a number of normal cases. For chemical examination he precipitates the fluid with equal quantities of a saturated solution of Mg. Sol., filters and boils. In pathological cases one gets a cloud on boiling. In 18 cases of clinically definite general paralysis he found positive results in 17. The 18th case was possibly alcoholic. In 11 cases of chronic alcoholism he obtained negative results in 7. None of the other 4 showed both lymphocytosis and cloudiness on boiling. The result when obtained in these cases was always limited. In three cases of epilepsy he got negative results in all. In a long series of cases of dementia precox, manic-depressive insanity, climacteric melancholia, paranoia and auto-intoxication psychoses the results were negative. Three cases of imbecility gave negative results, though they were all probably infected with syphilis. He investigated three cases of dementia senilis. Two of these suffered from marked arterio-sclerosis, and in these only did he get positive results, thus confirming to some extent Alzheimer's work on this disease. He found a slight lymphocytosis in a case of enteric. Meyer says lymphocytosis is practically always to be found in tabes, sometimes to an enormous extent. Two cases of tuberculous meningitis were positive, but no plasma cells were present, although these were later found to be abundant in the spinal pia. In cerebral tumours in certain positions he found tumour cells in the fluid. As regards the etiology of the lymphocytosis, he says that "meningitic stimulation" is looked upon as the cause, but that there can be no doubt that in many cases—arterio-sclerosis, e.g.—there is no such influence at work. Others assert that syphilis is the cause, but Meyer found that many of his negative cases had well-marked

syphilis. Without expressing any definite opinion, Meyer is evidently inclined to the belief that alteration in the vessel walls plays an important part, and thinks it probable that where we find a lymphocytosis in the liquor cerebro-spinalis we shall also find it in the blood. The contribution concludes with this practical rule: "In doubtful cases of general paralysis a positive result of a cerebro-spinal fluid investigation increases the suspicion of general paralysis and a negative result decreases it."

The Influence of Stimulation of the Cortical Intestinal Centres on the Small Intestine and the Ileo-cæcal Sphincter of the Dog.

V. Pfungen has an article on this subject in the *Archiv. f. d. ges. Physiol.* cxiv. It is extracted by Bielchowsky in *Neurol. Centralblatt*, No. 10, 1907. The writer agrees with others that the cortical centre indicated lies in the g. suprasplenialis ant. and in the anterior third of the g. suprasplenialis ant. Stimulation of this area produces contraction of the small intestine; this contraction may become very accentuated. Only in a few cases did the large intestine simultaneously contract. With the increase of the stimulus a short—at times fairly long—closure of the ileo-cæcal sphincter occurred.

The Function of the Temporal Lobes.

The *Neurol. Centralblatt*, No. 7, 1907, reports a paper read by Kalischer. He trained dogs in such a way that they only seized the food placed in front of them on the sounding of a certain note. He found the dogs easily distinguished half a tone difference in the note. He then removed one after the other the two temporal lobes. The dogs then paid no attention to his voice or ordinary sounds, but they still seized their food on the sounding of the particular note. This shows the presence of a lower sound reflex for the seizing of the food. The reflex existed after the removal of the quadrigeminal bodies.

Arterio-sclerosis as a Result of Psychical and Physical Trauma.

Watersmann and Bann (*Neurolog. Central.*, November 24th, 1906) have made the interesting observation that bodily accidents, which have had a psychical disturbance as an accompaniment, very often result in arterio-sclerosis. These observers mention that while Oppenheim indicates the possibility of such a result, they go very much further and assert that "in all truly traumatic neuroses, changes, which are to be looked upon as arterio-sclerosis, take place in the vessels." They investigated a long series of cases and always found the blood-pressure raised, together with other symptoms of the disease.

The Value of Flechsig's Areas in the Cerebral Cortex.

Oscar Vogt (*Anat. Anz.* xxix., 1906) holds that the medullation of the nerve fibres in the cerebrum does not take place in sharply marked-off cortical areas, but that a few medullated centres appear, and from these centres the medullation extends gradually outwards till the various fields coalesce. He is of the opinion that far more is to be learned from a study of the morphological differences of the cortical cell layers and from the differences in the arrangement of the fibres in the different regions than from observing the period at which medullation occurs.

MEDICAL MISCELLANY.

The Butter and Margarine Bill, which has passed the Standing Committee of the House of Commons, will absolutely prohibit any dealer in margarine from describing it otherwise on the wrapper. If no other measure passes through Parliament this year the session will not have been wasted.

According to the reports of the Public Health and Marine Hospital Service, in 1906 there were in the United States 12,503 cases of smallpox and 90 deaths, while in 1902 there were 55,857 cases with 1852 deaths. In Germany, where vaccination is compulsory and universal, during 1906 there were only 26 cases with five deaths in the whole empire.

The Governor of Illinois recently vetoed the Optometry Bill establishing a State Board of Optometry and requiring examination and licensing of opticians. The bill was vigorously opposed by members of the medical profession. The New York Senate, however, has passed the Optometry Bill, which really gives opticians the right to practise in a limited way a speciality in medicine, as medicine is defined in the new medical law. The bill now goes to the Assembly for concurrence. The physicians are urged to defeat this bill.

Numerous cases of cerebro-spinal meningitis have been reported in Vienna. The cases are frequently atypical or abortive, most of them severe, but under suitable treatment—lumbar puncture and serum injections—give a good prognosis. One of the most important prophylactic measures is said to be the examination of all persons coming in contact with the patient and who are suffering from nasal catarrh, as many of these are found to have meningococci in the naso-pharynx. Disinfection of the body and bed linen of the patients is also recommended.

The best and cheapest disinfection for cars and rooms may be accomplished in the following way:—Close all openings, and for each 1000 cubic feet use six and one half ounces of permanganate potassium and one pint of 40 per cent. solution of formaldehyde. Place the permanganate in a large tin dish, pan, or any like vessel, then pour the formaldehyde solution upon it. The formaldehyde gas will be quickly set free, and will penetrate plush, curtains, carpets and all parts of the car or room, causing complete disinfection. The rapid disengagement of the gas is an important point, and this method further commends itself because no fire or apparatus is required.

In a public address at the American Congress on Tuberculosis, a physician severely indicted churches as breeding places for tuberculosis. He said he recently had worshipped in a room where the air was breathed twelve times over in the course of the service. American visitors in some of the European cathedrals agree with the remark of a pert American Miss who did not know much about the date of the cathedral, but felt sure the air inside dated back to the time of William the Conqueror.

Dr. Raw, of Liverpool, England, recently read a paper before the Royal Medico-Chirurgical Society, in which he claimed that a bacteriological distinction was possible between human and bovine tuberculosis, and that certain forms of tuberculosis in man were usually due to the bacillus of the bovine disease, while other forms

were due to a different bacillus. Thus tuberculous peritonitis and tuberculous meningitis were produced by the bovine infection, whereas ordinary pulmonary phthisis was due to the bacillus of human tuberculosis. If this should be confirmed by further observation it will be an unexpected corroboration of the famous views expressed by Koch a few years ago.

The German authorities report that the mortality among infants averaged 19·8 per cent. throughout the Empire during 1906. In Bavaria the proportion was 25 per cent.; in Prussia, 19·4 per cent. In France for the corresponding period it was 13·7 per cent.; in Sweden, 8·8, and in Norway only 7·9 per cent. Measures to reduce the high infant mortality in Germany are now under way. Several "mothers' dispensaries" are already in successful operation in German towns modelled on the French "infant consultations." In all the "consultations" already established it is the universal experience that the mothers are inclined to err on the side of feeding the children too often and too much.

During the five months ended with March there occurred 6314 cases of spinal meningitis in Prussia, with a mortality of 44 per cent. In 1905 the mortality was 70 per cent.

The average income of Berlin's doctors is said to be £469. In the case of 1322 of them, however, it is less than £260.

The Independent Medical Association is the latest. It includes the advertising specialists, whose medical advertisements have been eliminated from the New York newspapers. The members of this association state that their object is the "protection and preservation of their inalienable right to the freedom of the press." To defray expenses, which would be incurred by fighting such legislation, membership dues are fixed at \$10 a year.

A device to prevent injury from falling out of bed or the escape of delirious patients has been in use for some time in the Budapest Hospital. A frame of gas piping fits over the bed and fastens below the mattress. At the foot and head the piping forms an arch, otherwise the frame does not show. A number of rings slide loosely on the two arches, and to these rings is attached a strong netting with very large meshes. When not in use the netting and rings lie at the back of the bed, almost entirely out of sight. It is recommended as much safer than the ordinary child's bed.

In the conditions of life of a great eastern city the destruction of rats can only be a very partial plague measure. A walk through Parel, India, would disclose on shop after shop, in English and the vernacular, this notice, "Rat killers are forbidden to enter these premises." When this is the attitude of a considerable section of the community, how futile it is to talk of rat extermination in Bombay.

At a conference of the Charity Organisation Society held at Norwich, England, in June last, a debate on "Provident Medical Associations" took place, particulars as to the extent to which charitable medical relief prevails. It was stated that in Greater London no less than 1 in 2·2 of the population is in receipt of free medical attendance, and that in London 1,859,809 out-patients and casualties were treated in the London hospitals in 1905.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The Colonial Nursing Association—The Royal Society of Medicine—The Birth-rate and Death-rate of Europe—The General Medical Council—The Prevention of Tuberculosis—Malta Fever—Death of Sir Joseph Fayrer—New Vaccination Order.

PRINCESS HENRY OF BATTENBERG, as Patroness of the Colonial Nursing Association, was present on June 14th at the eleventh annual meeting of the Society held, by the kind permission of the Duke and Duchess of Westminster, at Grosvenor House. The chair was occupied by Lord Amphill, and the meeting was attended by a large and fashionable assembly. The report set forth that the past year had seen a steady increase in the number of Association nurses employed both in the Government service and in the private branches. There was in China a new development which would make a considerable demand on the resources of the Association. The total number of nurses engaged during the year was 167, of whom 121 were in Government service and the rest in private employment. Much had been done to improve the hospitals and nursing conditions in the Crown Colonies and Protectorates, and it was satisfactory to learn from official reports that the nurses had contributed in no small degree to the improvement. Mr. Austin Chamberlain, M.P., in moving the adoption of the report and the re-election of the officers, expressed profound sympathy with the work of the Association. Through Mrs. Chamberlain he had heard of the Association from its birth, and this was the first annual meeting she had failed to attend, a failure which she deeply regretted. The organisation helped to discharge one of our Imperial responsibilities. If there was anything of which we should be specially proud it was the work done by young British officers among alien races, whose sympathy and confidence they always managed to win. Our distant dependencies were important to our future development, and even to our national existence, but their moral effect on the British race was even greater than their material value. If that was true we owed a debt to those men and women who represented us in distant parts of the Empire. No human foresight could entirely guard them against danger, but, as far as sickness was concerned, we could do something to save precious lives. That was the object of the Association, and none commended itself more strongly to a great Imperial people. Was it not true that even at home we looked in cases of serious illness to trained nurses, on whose skill and constant care life often depended. How much more important must such care be to isolated British people in tropical countries. Practical experience had shown that they could not provide skilled nurses for themselves. They had to look to this Association, whose operations, however, had had the happy result of stimulating the interest of colonial governments in the care of the sick. He endorsed Lord Amphill's appeal for more funds, and he would address it not merely to people who had relatives abroad, but to the great merchant houses who did business with our colonies, protectorates and dependencies. Sir Albert Hime, in proposing a vote of thanks to Princess Henry of Battenberg, offered to her Royal Highness hearty and respectful congratulations on the birth of her grandson, the Prince of Asturias, a happy event which should cement more firmly than ever the long standing friendship between this country and Spain.

For upwards of a century there have been repeated attempts to amalgamate the many medical societies which exist in London. About two years ago a fresh movement to accomplish this scheme was inaugurated by Sir Richard Douglas Powell and Sir William Church, and, thanks to the energy of these two gentlemen, the negotiations, on this occasion, have resulted in the formation of a Royal Society of Medicine, which was formally constituted at a meeting of the fellows held at 20 Hanover-square on June 14th. The societies represented were the following:—Royal Medical and Chirurgical Society, Pathological Society of London, Epidemiological Society, Odontological Society of Great Britain, Obstetrical Society of London, Clinical Society of London, Dermatological Society of London, British Gynaecological Society, Neurological Society, British Laryngological, Rhinological and Otolological Association, Laryngological Society of London, Dermatological Society of Great Britain and Ireland, Otolological Society of Great Britain and Ireland, British Electro-therapeutic Society, and Therapeutical Society. The committee of representatives of the societies which had indicated their adhesion to the project have drawn up a series of by-laws, which were adopted at the last meeting. They provide among other things for the establishment of the following sections:—Clinical, dermatological, electro-therapeutical, epidemiological, laryngological, medical, neurological, obstetrical and gynaecological, odontological, otological, pathological, surgical, and therapeutical and pharmacological. Sir William Church was elected the first president, and the officers and council were appointed as follows:—Dr. F. H. Champneys and Mr. A. Pearce Gould, M.S., honorary treasurers; Mr. Rickman J. Godlee, Dr. Henry Head, and Dr. Norman Moore, honorary librarians; Dr. Arthur Latham and Mr. Herbert S. Pendlebury, honorary secretaries; and Sir Richard Douglas Powell (president of the Royal College of Physicians), Mr. Henry Morris (president of the Royal College of Surgeons), Mr. J. Warrington Haward, Mr. G. H. Makins, Sir Shirley F. Murphy, Mr. Thomas Laurence Read, Sir Felix Semon, Dr. Frederick Taylor, and Dr. Thomas J. Walker, members of council.

In the return recently published by the Local Government Board for 1906 it has been, for the first time, found possible to compare the births and deaths in England and Wales with those in the chief cities of Europe. The report states that the general decline in the birth-rate in Scottish cities, in colonial cities, and in most of the Continental cities shows no signs of arrest. In all the cities for which returns are available the birth-rates for the year 1906 were, with the exception of those recorded in Dublin and in Copenhagen, below the averages in the preceding quinquennial periods. In 1906 the birth-rate per 1000 living was 18·8 in Paris, 18·5 in Brussels, 26·7 in London, and 24·9 in Berlin. Other statistics in the return show that the tendency for smaller families is general in Europe. In 20 years the decrease in the size of families ranges from 10 per cent. in Rotterdam and Budapest to 30 per cent. in Copenhagen, and as much as 33 per cent. in Berlin. It is interesting to note that the size of families in London is considerably greater than that prevailing in Paris, Berlin or Vienna. The decrease per cent. in 20 years in the size of families is shown as follows:—London, 16·4; Paris, 25·5; Berlin, 32·9; Copenhagen, 20·9; Hamburg, 26·2; The Hague, 26·4. The death-rates in the chief Continental cities reveal a general tendency to decline.

On May 28th the 85th session of the General Council of Medical Education and Registration entered upon

its summer sittings, the chair being occupied by Principal Donald MacAlister, the president. The following new members took their seats as direct representatives for England:—Dr. Henry Langley Browne, introduced by Dr. Saundby; and Dr. Leonard Strong McManus and Dr. William Henry Latimer, introduced by Sir John Williams. Dr. Norman Purvis Walker, introduced by Mr. Hodsdon, also took his seat as direct representative for Scotland. In his opening address the President, after making suitable allusion to the services of retiring members of Council, and offering a kindly welcome to those who took their places for the first time, outlined the programme of business. This contained no topics of exciting interest, the main items being certain changes in the formulæ of poisonous drugs which it was contemplated introducing into the next Pharmacopœia, a scheme for medical reciprocity with Nova Scotia, the issue of a new print of the standing orders for public use, and the announcement of a small financial surplus. A vote of thanks for his address was accorded to the President on the motion of Dr. Norman Moore, seconded by Mr. Henry Morris. Sir John Moore proposed a resolution which implied a demand for greater supervision over the examination of the Apothecaries Hall, Dublin, but it was negatived. On the motion of Sir Hugh Beevor, Mr. Henry Percy Dean, M.B., F.R.C.S., was appointed assistant examiner in surgery to the Apothecaries Society of London, in succession to Mr. Peyton T. D. Beale. On the motion of the President, it was agreed that the report presented by the Executive Committee on the recognition of Nova Scotian degrees and diplomas be received and entered on the minutes. This report embodied the following resolution:—"That any person who holds (1) the diploma or license in medicine, surgery, and midwifery granted after examination by the Provincial Medical Board of Nova Scotia, together with the license to practise in that province; or (2) the degrees of doctor of medicine and master of surgery of the Dalhousie University, together with the aforesaid license to practise; or (3) the degrees of doctor of medicine and master of surgery of the Halifax Medical College, together with the aforesaid license to practise, shall be entitled to be registered in the Colonial List of the Medical Register, provided he satisfies the Registrar of the General Medical Council regarding the other particulars set forth in Part II of the Medical Act, 1886." After consideration in camera, the name of Hugh Stanley Revell was restored to the Register. A motion by Dr. Lindsay Steven on the subject of clinical teaching was withdrawn, after a short and hostile discussion. The first part of the sitting on Wednesday, May 29th, was occupied in the discussion of penal cases, and in the consideration of a report by the Executive Committee on a communication from the British Medical Association concerning procedure in these cases. On Thursday, May 30th, Sir John Williams moved the adoption of a series of resolutions which the Students' Practical Midwifery Committee submitted should be substituted for the existing recommendations of the Council in regard to instruction in midwifery. On the motion of Dr. Mackay the interim report of the Education Committee was received and entered in the minutes. Dr. Pye Smith moved, and Mr. Tomes seconded, the adoption of the report of the Finance Committee. This report was considered satisfactory, and showed a surplus of £40 5s 7d, the income for the year being £8473 14s 2d and the expenditure £8433 8s 7d. The report of the Dental Education and Examination Committee was received. Sir Hugh Beevor presented the report of

the Students' Registration Committee, to which the Council gave its approval. The committees of Council for the ensuing year were then appointed. On Friday, May 31st, Dr. Norman Moore presented the report of the Pharmacopœia Committee, which was adopted without remark. The Council then proceeded to consider several reports bearing on the alterations in regulations for degrees in medicine introduced into the proposed new ordinance for the University of Edinburgh. Ultimately the following resolution, moved by Mr. Thomson and seconded by Dr. Mackay, was adopted by a majority:—"That the Council having considered the proposed ordinance of the University of Edinburgh find nothing therein which is contrary to the Council's resolution on professional education and examination." The Council unanimously agreed to reappoint Mr. H. E. Allen to the office of General Registrar. The session was then brought to a conclusion by an unanimous vote of thanks accorded to the President.

A conference of the City and Borough Councils of London was held early in June at the Town Hall, Paddington, to consider the question of limiting the spread of tuberculous disease. After a lengthened discussion, the following resolutions were finally adopted: 1. "It is desirable that the notification of pulmonary tuberculosis (consumption) should be compulsory." 2. "That application be made to the Local Government Board for an order (a) to include consumption among the diseases to be notified under section 55 of the Public Health (London) Act, 1891; and (b) to extend the provisions of the following sections of the Act to consumption:—Section 60, cleansing and disinfecting of premises, etc.; Section 61, disinfection of bedding, etc.; Section 62, infectious rubbish thrown into ashpits, etc., to be disinfected; Section 63, penalty on letting houses in which infected persons have been lodging; Section 64, penalty on persons letting houses making false statements as to infectious diseases; Section 65, penalty on ceasing to occupy house without disinfection or notice to owner, or making false answer." 3. "That in order to limit the spread of tuberculosis provision should be made for public inspection and control at its several sources of the milk supply of England, and the Local Government Board should be asked to make the Dairies, Cowsheds, and Milkshops Order of 1885 and its amendments compulsory on local authorities." 4. "That application be made to the Local Government Board for an order to extend the provisions of Section 69 of the Public Health (London) Act to pulmonary tuberculosis in so far as it relates to the milking of cows and to the sale and distribution of milk." 5. "That the provision conferred by Section 7 of the Factory and Workshop Act, 1901, namely, that in every room in any factory or workshop sufficient means of ventilation shall be provided and sufficient ventilation maintained, be rigidly enforced, and a similar provision extended to all places where people are assembled together for any lengthened period, with a view to restricting the spread of pulmonary tuberculosis." 6. "(a) That a sanatorium is needed for the open-air treatment of poor persons suffering from pulmonary consumption in the early stages of the disease, and should be provided by a central authority acting for the metropolis as a whole. (b) That the managers of the Metropolitan Asylums Board by reason of their practical experience in the management of hospitals for infectious disease being eminently qualified for the position of such authority, the Local Government Board be requested to confer on, or, if necessary, to obtain for, the said managers power to act in that capacity. (c) That the managers of the Metropolitan

Asylums Board should also be empowered to use, for sanatorium purposes, the Southern Hospital recently erected by them at Carshalton." 7. "That the Government be urged to consider the desirability of their providing a sum of money annually for the erection and maintenance of suitable sanatoria for the treatment of early cases of consumption."

For many years past the naval and military forces garrisoned in Malta have suffered severely from Mediterranean fever. There has been a yearly average of 650 victims, and, as each patient remains in hospital on an average 120 days, the total annual illness among the troops from this disease has reached the formidable record of 80,000 days. In addition, a large proportion of these invalids are sent to England to complete their convalescence before becoming fit to resume duty. In 1904 the Royal Society, at the conjoint request of the War Office, the Admiralty, and the Colonial Office, undertook to investigate the causes of this fever, and sent out a small commission for that purpose. As early as 1887, it was discovered by Surgeon-Major Bruce that the cause of the disease was the micrococcus melitensis. This bacterium was studied by many observers and from many points of view, but little additional knowledge was obtained until the remarkable discovery was made that goats, of which there are upwards of twenty thousand in Malta, harbour the parasite and pass it on in the milk they supply to the inhabitants of the island. It was ascertained by the commission that half of these animals are affected by Malta fever, and that one-tenth are constantly passing the micrococcus melitensis in their milk. Notwithstanding that the goats show no outer signs of the disease, they continue, possibly for years, to secrete milk containing the poison. In June, 1906, goats' milk was suppressed as an article of diet for the garrison, with the striking result that the cases of fever fell to one-tenth of what had been their normal number. It is, therefore, reasonable to hope that this disease will now disappear from the garrison in Malta.

Sir Joseph Fayrer died at Falmouth on May 21st. Sir Joseph was born at Plymouth in 1824, and was the second son of the late Commander R. J. Fayrer, R.N. In early life he was educated in Scotland, but his professional studies were pursued in London and on the Continent, as well as in Edinburgh. He was an M.D. of Edinburgh, a Fellow of the Royal College of Physicians of London, a Fellow of the Royal College of Surgeons of London and of Edinburgh, and a Fellow of the Royal Societies of London and Edinburgh. He first entered the medical service of the Navy and was a hospital officer in Palermo during the siege of 1847-48. In 1850 he entered the Bengal Medical Service, from which he retired in 1874. After going through the Burmese war of 1852, he served through the Indian Mutiny of 1857, and took part in the defence of Lucknow, where he was Political Assistant and Residency Surgeon. For these services he received medals and clasps and the brevet rank of surgeon, and was allowed to count one year's service towards retirement. He was Professor of Surgery in the Medical College of Bengal from 1859 to 1874; was Fellow, Member of Senate, and during two years President of the Medical Faculty of the Calcutta University; and was successively Vice-President and President of the Asiatic Society of Bengal. He was created C.S.I., December 22nd, 1868; and advanced to K.C.S.I. in March, 1876, at an investiture of the Order held at Allahabad by the Prince of Wales, whom during his travels in India he accompanied as physician. He had previously accompanied the Duke of Edinburgh in his visit to India in

1870. He was appointed Surgeon-General and President of the Medical Board of the India Office in December, 1874, retiring in 1895. Sir Joseph was honorary physician to the late Queen, to the then Prince of Wales, physician to the late Duke of Edinburgh, and had been physician extraordinary to the King since 1901. He was the author of many valuable contributions to medical literature, among the more notable being "Clinical and Pathological Observations in India," "Climate and Fevers of India," "The Preservation of Health in India," and "Clinical Surgery in India." He had received many honours from British and foreign learned bodies, and from foreign sovereigns. Among the list may be mentioned the second class of the Order of the Conception from the King of Portugal, the third class of the Redeemer of Greece from the King of Greece, and the third-class of the Medjidieh from the Khedive of Egypt. In August, 1878, the hon. degree of LL.D. was conferred on him by the University of Edinburgh, and in April, 1890, by the University of St. Andrews. He was vice-president of the Zoological Society of London. In December, 1892, he represented the Royal College of Physicians of London and the University of Edinburgh at the Tercentenary of Galileo at Padua, and was made Ph.D. of Padua. He was a Foreign Associate of the Académie de Médecine de Paris, a Foreign Corresponding Member of the Royal Academy of Sciences of Lisbon, and a member of many other foreign societies. He was created a baronet in 1896. In 1855 he married the daughter of Brigadier-General Sprus, and he is succeeded in the baronetcy by Lieutenant-Colonel Joseph Fayrer, R.A.M.C., medical officer of the Duke of York's Royal Military School.

The President of the Local Government Board is issuing a new order, the effect of which should be to cheapen vaccination. The new order, which will supersede the order of 1898 in relation to public vaccinators, will come into operation on October 1st of this year. The following summary of the order is taken from the report of a *Morning News* correspondent:—Article 1 deals with the provision to be made in any future contract for public vaccination, other than a contract with the medical officer of a workhouse for the vaccination of the persons resident in it, and substitutes a new article on the subject for Article 3 of the order of 1898. The new article repeats the requirement in the order of 1898 as to the provision to be made by the contract for the payment to the Public Vaccinator of a minimum fee of 1s in respect of every child whose birth is registered in his district, or who is resident there and whose birth has been registered elsewhere or has not been registered at all. The order of 1898 requires that the contract shall provide for the payment to the Public Vaccinator of a minimum fee of 2s 6d in respect of every successful primary vaccination of any person other than a child, or of any successful revaccination, where in either case the operation has been performed by him at his surgery or elsewhere than at the home of the person vaccinated. The new order extends this requirement so as to include any case of successful vaccination performed by the Public Vaccinator on a child whose age exceeds twelve months at his surgery or elsewhere than at the home of the child. The parent or person having the custody of the child must, however, have requested that the child may be vaccinated elsewhere than at the home of the child, and the Public Vaccinator must have satisfied himself that the child can be safely vaccinated. The order of 1898 requires that the contract shall provide for the payment to the Public Vaccinator of a minimum fee of 5s in respect of every successful vaccination or revaccination

performed by him at the home of the person vaccinated. The new order alters this requirement, the effect being that where the district is situate wholly or partly in London, or in a borough or other urban district with a population according to the returns of the last census for the time being of not less than 50,000, the amount of the payment must in every case be not less than 2s 6d, and that where the district is not so situate the amount must in every case be not less than 3s 6d. It will be understood that the payments fixed by the order are only minimum, and that the precise sum to be paid should be determined by agreement between the guardians and the Public Vaccinator. The new order deals specially with cases where during a period of 24 hours successful vaccination or successful revaccination has been performed by the Public Vaccinator upon two or more persons at one and at the same home, or on any premises (other than the surgery of the Public Vaccinator) on which those persons were together present at any time during this period. The new order repeats the provisions of the order of 1898 as to the conditions of payment of the Public Vaccinator and the age for revaccination. As regards existing public vaccinators, it will not be requisite that fresh contracts should be entered into with them in consequence of the new order. The order of 1898 requires that the visit of the Public Vaccinator to the home of a child, whether on request of the parent or other person having the custody of the child, or after notice from the vaccination officer, shall, in the absence of any sufficient reason for delay, be made within two weeks after the receipt of the request or notice as the case may be. This period is extended by the new order to four weeks, so as to give public vaccinators an opportunity of arranging their visits to the homes of children when they have other professional work in the neighbourhood of those homes.

BILHARZIA HÆMATOBIA.

(To the Editor of the *Australasian Medical Gazette*.)

Sir,—In your issue of July 20th "Notes on a Case of Bilharzia Hæmatobia," by Dr. Newmarch, are printed. The patient referred to was under my treatment off and on for many years while he lived at Jesmond, near Newcastle. On August 20th, 1898, he called in the evening at my consulting rooms and complained that he was passing a large quantity of blood with his water; that he had taken, two days before, a drink of turpentine in mistake for cold water; and that he could not make out where the smell of violets was coming from. Frequently since then I have examined his urine; it always contained blood corpuscles and at times more or less profuse macroscopic quantities of blood.

At the end of paragraph 4 in his notes Dr. Newmarch writes: " . . . for after a most careful examination he discovered one ovum of the hæmatozoon." About where the patient lived there has been for at least three-quarters of a century a settlement of white people; there are a few waterholes in a freshwater creek which runs through the valley; these have always been used for bathing and for irrigating gardens. It is odd that only one case has occurred in the neighbourhood if the waters of the creek were infected.

Unless more facts can be brought forth in regard to the case, it is hardly justifiable, when the history is considered, to base upon it the assertion that " . . . It is a case of infection by the hæmatozoon in a patient that has never resided in other countries except England and Australia. The deduction is obvious."—I am, etc.,

JOHN B. NASH, M.D.

Maoquarie-street North.

Lunacy Reform in Victoria.

DR. J. W. SPRINGTHORPE, official visitor to the metropolitan asylums, has forwarded to the Acting Premier the following report on the conditions existing in the Kew and Yarra Bend lunatic asylums:—" Gentlemen, —I find it my unpleasant duty to report that despite the extended powers of the amended Lunacy Act, and despite also the generous and sympathetic support of the Government, there are still in our metropolitan asylums practically the same overcrowding, the same deficiency in the number and training of attendants, the same lack of trained nurses, and the same want of proper care and treatment of the acutely sick and the acutely insane that characterised them prior to the recent crusade for lunacy reform.

" As part proof of this extremely disappointing and unsatisfactory state of affairs I append a copy of my official reports to the Hon. the Chief Secretary, since January, 1906. I regret that, owing to the fact that neither metropolitan asylum possesses a typewriter, the copy had to be forwarded single and written. In the selected details which follow, the dates given are those of the corresponding reports:—

" 1. As regards overcrowding, there are still beds in corridors, in dining-rooms, and on the floors in many wards, as well as an excessive number in almost all dormitories. In Kew on the 30/11/06 there were 14 more male patients than there were twelve months previously, and 125 more female patients than the asylum was built to contain. In one male ward there were as many as 27 beds to 1300 square feet of floor space, and there were on the 16/6/07 no less than 10 beds (5 on the floor) in an area in the female refractory ward 20 feet by 12 feet. In the Yarra Bend, on the 15/5/07, there were 39 male and 22 female beds on the floor, and 841 patients instead of 758.

" 2. As regards deficiency of trained attendants, despite the lamentable conditions disclosed by previous reports, there has not, during the past two years, been a single course of lectures or instruction completed in either Kew or Yarra Bend, and not a single examination held (other than preliminary to entrance). An examination for probationers and attendants was to have been held last January; this was postponed till the present June. Now, though in the Idiot Asylum a full course of lectures has been given to 26 females and 16 male attendants, and though a course has been partly completed at Kew and another at the Yarra Bend, the examination has been further postponed until January, 1908. As regards numbers, though 12 months ago 24 extra attendants were asked for for Kew alone, there were on duty on 30/11/06 only the same number as twelve months previous, whilst the proportion of probationers was as large as ever. At Yarra Bend the staff continues practically the same numerically, whilst on the 15/5/07, out of 50 male and 45 female attendants, 20 and 17 respectively were either probationers or temporary employees.

" 3. As regards hospital accommodation and hospital nursing, there is still no hospital ward in either Kew or the Idiot Asylum. At Yarra Bend money was provided 15 months ago for two temporary hospital wards, but these were not completed for twelve months. Then they were found unsuitable owing to the falling down of the ceilings and walls. Now their inmates are without fires, because the grates are unsafe. As regards hospital nurses, there is still the old deficiency of trained nurses at each asylum, and in the Idiot Asylum on 23/6/07 two typhoid cases were being nursed by an attendant who has no hospital training, a pro-

cedure that would not be permitted in any institution outside asylums such as ours.

"4. As regards night attendance, the picture given in report dated 19/2/07 (which deals with the state of matters in the male wards at Kew), applies equally to the female division and to the Yarra Bend. It disclosed one night attendant, who, in addition to looking after 44 refractory patients (many of them homicidal), has also to look after 189 other patients scattered through other wards and single rooms, and also to act as hall porter after 10.30 p.m. Further, in addition to this insufficiency of night attendants, there is no night supervision beyond that of the head attendant, who goes off duty at 8.30 p.m.

"5. The care and treatment of new patients is, however, the most important of all the functions of an asylum. In Kew and Yarra Bend practically all new patients are still confined within airing courts, instead of being given all possible freedom in walks drives, exercise, etc. The modern treatment is a special daily physical and psychical prescription compiled for the individual patient, and carried into effect by a specially selected attendant. In our private asylums most curable cases have one and some two such attendants each. In neither Kew nor Yarra Bend is any such treatment even attempted. In the male receiving ward at Kew on the 30/11/06 there were 15 pay patients in one airing court with one attendant (a temporary hand of three weeks' experience), and in another similar court 20 non-pay patients under two more experienced attendants. And on 18/6/07 in the female receiving airing court there were 60 patients, of whom 19 were new cases (7 requiring individual curative attention and a number of others needing special attention to prevent injury and suicide), and all under two attendants, both recent probationers, without any training, though the court is so constructed that it requires four attendants to keep all patients even in sight. Turning to Yarra Bend, the female receiving ward there has always been utterly unfit for the continued occupation of any human being, and it is a scandal to use it for any remedial purposes whatever. The male patients are perhaps even worse off. In the absence of any suitable accommodation they are sent to the refractory ward, which has only recently been provided with a second airing court. In the old pandemonium on 15/5/07 there were 60 patients (including some recent admissions) under two attendants (both probationers), and in the new airing court (which is only the other side of the corridor) were 18 patients (of whom three were recent admissions), with only one attendant, who a fortnight before had been a baker, without previous lunacy training or experience. This is the care and treatment provided for the unfortunate insane of Victoria in the year of grace 1907! By no stretch of the imagination can I find any justification for the continuance of such callous and awful neglect.

"6. As regards the general and special equipment that characterise modern asylums elsewhere, in the shape of baths, electrical apparatus, massage, conveyances, mechano-therapy and the like, they are still as rudimentary and practically non-existent as when the deficiencies were first tabulated in my paper on 'Our Metropolitan Asylums.' The natural and inevitable result has followed the deplorable condition of affairs which I have thus briefly outlined. The attendants recognise that training and efficiency do not count; that treatment means simply safe detention, no longer in straight jackets but within closed walls; and that their own just claims for status and promotion remain ignored. The medical staff find it impossible

to do what they would and should for the relief of patients, and are disheartened and discouraged in their repeated attempts after improvement. The metropolitan superintendents in addition find themselves placed upon the same financial footing as the most recent superintendent of the smallest country asylum, their scientific interest dulled by the deprivation of their right to teach medical students, and their proper pride humiliated by that right being exercised by an outsider. Finally, such of the unfortunate 500 yearly new admissions as are not hopeless or incurable cannot, and do not even yet, receive anything like the care and attention to which they are entitled, and their purely medical treatment cannot even yet be deemed any less unsatisfactory than when both were reported against, in the same terms, by the late Inspector-General in his annual reports for 1899 and 1900."

In consequence of the recent criticisms (says the *Melbourne Age*) of the management of the Kew Asylum, the Chief Secretary recently inspected the institution. He was accompanied by the Under-Secretary, the Inspector-General of the Insane, and Mr. Membrey, M.L.A.

Sir Alexander Peacock said he had gone over the whole of the building, and was impressed with the fact that great alterations would have to be made. The additions made of recent years had in many cases been so placed as to obscure the light and block free ventilation. As had been reported over and over again, there had been overcrowding, but that had been in consequence of the great increase of patients throughout the State, and the overcrowding could not be relieved until the new buildings at Ballarat and Sunbury were completed. Considerable relief had now been given by those buildings. Last week 30 patients were sent away from Kew, and an additional 35 would go next week to Sunbury. When the additions at Beechworth were completed some relief could be given to Yarra Bend. Dr. Jones had been recently criticised in some quarters, but he (the Chief Secretary) was satisfied by his personal investigation—as he had been by the perusal of the reports—that Dr. Jones had been blamed for matters that he was not properly to blame for. The Government must take its share of the responsibility, for when the agitation to dispose of the Kew land was raised the Government decided that no alterations or additions should be made to Kew Asylum until the question of the sale of the land was settled. He purposed bringing the whole matter before the Cabinet, so that the Lunacy Department might have a definite object in view, and that the new asylum at Heidelberg, the site for which had been obtained and the plans prepared, might be proceeded with. That building could be erected in sections, so that whatever was spent each year would be part of a general scheme, but still would be ready for occupation in itself. Of one thing he was satisfied, viz., that there had been a want of proper provision in the laundries and kitchen, which were far behind the times. More labour saving appliances were required. Up till the time of Dr. Jones' arrival about £1,000,000 had been spent on buildings throughout the State, but on these buildings, for ten years just prior to the arrival of the Inspector-General, only £50,000 had been spent, in addition to which £30,000 was spent on a new building at Ballarat. Any business man could well imagine the condition of a million pounds' worth of property upon which only £50,000 had been spent in ten years. Dr. Jones had done the best he possibly could. Returning to the subject of the Kew building, the Chief Secretary said he had gone over the whole of it, and as far as he could see, it was in perfect order. However, it had been in

existence for 40 years, and required many improvements. He went over the Idiot Asylum and saw 300 idiots. The buildings were on the slope of the hill. Since Dr. McFarlane had taken charge of this branch the death-rate had decreased from 11 per cent. to 3 per cent. More accommodation in the laundry and kitchen was absolutely indispensable, but this was delayed pending the decision as to the removal of the asylum. He intended to strongly recommend to the Cabinet Dr. Jones's suggestion that the Idiot Asylum should be removed, and not be associated with any lunatic asylum. Dr. Jones had recommended that these unfortunate idiots should be transferred to a place in the country, preferably on the sea coast. It would be a serious question for the Cabinet to consider whether it would be wise to part with the whole of the Kew lands, or whether such alterations could not be made at Kew, so that the building could be utilised for chronic cases of insanity, which were more in the nature of benevolent cases, and some portions of the ground might be sold or used for a public park.

A report has been forwarded to the Chief Secretary by the Inspector-General of the Insane, Dr. Jones, in reply to the statements made by Dr. Springthorpe, in regard to the treatment of the typhoid patients at the Kew Idiot Asylum. Dr. Jones states that the first two cases of typhoid at the Idiot Asylum were nursed by a hospital trained nurse in the main asylum. When the epidemic ceased in the main asylum these were transferred to the Idiot Asylum, and isolated in the hospital annexe. Directly it appeared certain that the Idiot Asylum was producing other cases of typhoid a hospital trained nurse was obtained. Previously to this the cases were nursed by a hospital trained nurse, who was also matron, with the assistance of one first grade and two second grade nurses. The school day rooms were taken for the isolation of these cases, and the arrangements previously provided by the Public Health Department for disinfection was carried out. As fresh cases occurred additional hospital trained nurses were obtained, and now there were two such nurses for day and one for night duty. They had also the assistance of the regular staff, and the nursing was constantly supervised by the matron and the medical officer. He claimed that adequate nursing and attendance had always been provided. Until he received the report of the Board of Health he could not say anything as to the cause of the epidemic, but he believed the methods adopted had always had the approval of the visiting medical officers of the Board of Health. It was not correct to say that the Lunacy Department did not wish to work harmoniously with the Nursing Association. This was shown by the fact that trained nurses had been obtained for the hospital wards wherever possible, and an endeavour was still being made to secure them. On two occasions recently nurses had been advertised for. The nursing of cases of typhoid, or any other serious illness in cases of mental disorder or defect, was much more difficult than the nursing of the sane. The character of the disease ran a more serious course as a rule, and it must be remembered that the asylum nurses were living under the same conditions that had produced typhoid in the patients. It was therefore hardly fair to contrast the conditions at Kew with the Melbourne Hospital. If competent women were engaged in the care and nursing of the insane, taking their turn in the hospital, the receiving, acute, and chronic wards, and if they were instructed and passed proper examinations, he failed to see why they should not be considered trained mental nurses, and that was all the department asked for.

MEDICAL MATTERS IN PARLIAMENT.

Medical Practitioners as Witnesses.—A short bill of two clauses has been introduced into the Victorian Legislative Council by the Acting State Premier. The bill provides that section 55 of the Evidence Act of 1890 shall not apply to any physician or surgeon so far only as regards any evidence or information given by or required from him in any civil suit, action, or proceeding, provided, however—(a) that he cannot give evidence or information as to any statement made to him by his patient; (b) that any evidence or information given by such physician or surgeon must relate to the issue; and (c) that no question shall be answered which, in the opinion of the Court, is asked in order to injure the patient, or is not material to the issue. This will considerably widen the power of Courts in receiving medical evidence.

Protection of Infant Life.—The Tasmanian Government have prepared and circulated a new bill providing for the better protection of infant life. It repeals part 16 of the Public Health Act, in order to improve the provisions therein contained in reference to the protection of infant life. All nursing homes or places where infants are put out to nurse must be registered under the Act, and an annual renewal of registration made, for which there is to be no fee payable. Clause 6 provides—"In no case shall any such payment or reward be otherwise than by way of periodical instalments, and no such instalment shall be paid for more than four weeks in advance or exceed the sum of 20s per week. The Clerk of Petty Sessions may receive payment of any sum in advance for the keep and care of any child in a nursing home, and may pay out such money in monthly instalments not exceeding the instalments so limited. In case of the death of the child, any sum unexpended after payment of funeral expenses shall be returned to the person entitled to receive the same." The officer of police in charge of the register will superintend the number of infants to be nursed at a home, and the Commissioner of Police may refuse to register or renew registration of any home if dissatisfied with it as suitable for the purpose, or thinks it is situated in an unsuitable locality. Every registered person will have to keep in the nursing home a roll bearing the name, sex, and age of each infant; names and addresses of the parents, together with their occupations, the terms agreed upon, etc. On removal of a child from the home particulars will have to be entered as to those taking charge of the same, and who have to sign the roll. This roll is to be open to the inspection of the police at any time. There are clauses making stringent provisions as to the feeding, clothing, and care of such children. Default means cancellation of the registration of the home, and other penalties. If a person placing an infant in one of these homes gets into arrear in payment of instalments, provision is made for steps to be taken by the Commissioner of Police. Notice has to be given within 24 hours of the death of an infant at such a home, and a coroner's certificate will be necessary before burial. Inspection of these homes by the police must take place every three months, and, if considered necessary, the officer is to be accompanied by a medical man. In case of a private person adopting an illegitimate child, notice has to be given to the Commissioner of Police, accompanied by full particulars. The father of such child may be prosecuted for leaving the child without means of support, and there are numerous other "machinery" clauses.

Patent Medicines.—Last month Mr. Thomas, Labour member for Broken Hill, moved the adjournment of the House of Representatives to call attention to the fact that patent and proprietary medicines were being imported without a full description of their component parts being set forth on the labels. The hon. member observed that he would not have taken this step had the Minister of Customs (Sir William Lyne) given more satisfactory answers to his questions. In August last a resolution in favour of a statement of the ingredients of imported patent medicines was carried unanimously, but so far the Government had done nothing. Since then he had asked questions, and a large number of Latin names, which he could neither spell nor pronounce, had been hurled at him. It had been further said by the Minister that regulations requiring true descriptions and other particulars in regard to all artificial and infants' foods would come into operation on January 1st, 1907, yet no such regulations had been enforced. The House had been treated most unfairly. If the Minister had insufficient power, he felt sure that the House would have been pleased to grant him more. He did not wish to do anything offensive to the Government. All he asked was that the people should know what they were buying, and the House was entitled to know why no action had been taken. Some time after the resolution had been carried by the House a cablegram appeared in the press stating that the proprietary articles section of the London Chamber of Commerce had resolved that deputations should wait on the Agent-General for Victoria, and the High Commissioner for New Zealand, to protest against the Victorian Pure Foods Bill. It was further recommended by the Chamber that its members should cease advertising in colonial papers when the Parliaments enforced the bill requiring a statement of the formula. When a telegram like this appeared in the press, he wanted to know why the Government did not go on. If those who advertised patent medicines in the press were more powerful than the Government or Parliament, it was about time the fact was known. Mr. Hutchison (S.A.) said a statement had been made by responsible people to a previous Minister of Customs to the effect that drugs were being brought into the Commonwealth that caused wholesale destruction of human life. Mr. Spence (N.S.W.) remarked that if investigations were made it would probably be found that some quack medicines should come under the heading of poisons or frauds. Not long ago a saleswoman in a shop was summoned for selling liquor without a license. She was selling a patent medicine of greater alcoholic strength than whisky. The drug habit seemed to be growing in Australia, and it was as bad as the drink habit. Mr. Salmon (V.) observed that when the resolution was previously before the House the Minister for Customs had said that the passage of it would strengthen his hands. He was surprised indeed to find that nothing had been done. There was no more potent factor in depriving the Commonwealth of its natural increase of population than artificial foods. Some of the imported foods were of no more use to a child than sawdust. Many of them contained deleterious elements that actually killed the children. Mr. Fowler (W.A.) said that it was somewhat remarkable that a Minister who had been straining every nerve to protect manufacturers who did not want protection took so much time to act on the mandate of Parliament to prevent the whole community from being plundered and poisoned. Dr. Liddell (N.S.W.) said that certain proprietary medicines, which set forth the contents, were often recommended by medical men, but there were also patent medicines that were decidedly deleterious to health. Many a child's life had

been sacrificed by the unfortunate infant being drugged with powders. Some of the hair dyes advertised to restore hair to its natural colour contained lead, and as a result those who used them might suffer from lead poisoning or become paralysed. The Minister of Customs (Sir William Lyne) had directed that in all cases the component parts of the medicines and foods should be set forth unless there were good reasons why the secret of composition should not be disclosed. The regulation is being prepared at the present moment. The motion for the adjournment of the House was formally negatived.

New Preparations.

PLASMON.—We have received from the International Plasmon, Limited,—whose advertisement appears on page 22 of our advertising columns—samples of plasmon and plasmon preparations, including plasmon cocoa, plasmon chocolate, plasmon biscuits, plasmon blanc-mange powder, plasmon custard powder, plasmon tea, plasmon oats, and plasmon arrowroot. Plasmon is fresh milk dried into a soluble powder by the removal of the fat, the sugar and the water; 100 lb. of milk make about 3 lb. of plasmon. The *Lancet* states that "Plasmon has satisfied both chemical and physiological inquiries, that it contains, as shown by their analysis, the salts of milk, including the phosphates. It is obvious that plasmon may be employed with the greatest advantage for enriching foods or for raising their actual flesh-forming value to a high and trustworthy degree." Plasmon is already well known and extensively used in Australia as a very valuable adjunct to the diet of invalids and convalescents. The numerous varieties in which plasmon is prepared offer to the careful housekeeper an almost endless choice. Plasmon powder, itself the product of pure milk, may be added to almost any dish, greatly adding to its nutritive and digestive value without in any way detracting from its flavour. Plasmon cocoa, owing to the large amount of proteid (nourishment) it contains, is becoming known as "the food cocoa." Plasmon oats make delicious porridge with only four minutes' boiling, and being entirely deprived of husk and fibre are suitable for the youngest children or the most delicate invalid. Plasmon custard and blanc-mange are recent additions, and while delicate in flavour are literally brimful of nourishment; while plasmon tea, being deprived of all its tannin, is excellent for weak digestions. There are many other varieties of these delicious foods, but space forbids their mention. They are, however, all worthy of inclusion in the household menu.

"Wellcome" Brand Anæsthetics.—It is well known that chloroform is subject to decomposition by the action of air and ordinary daylight. To avoid all possibility of deterioration from such influences "Wellcome" brand chloroform is issued in hermetically sealed amber coloured glass tubes. "Wellcome" brand ether, S.G. 720, which conforms to the requirements of the British Pharmacopœia for pure ether, is also issued in hermetically-sealed glass tubes. By this method perfectly fresh and chemically pure anæsthetics are always available. In both cases these tubes contain accurately measured quantities, and are convenient for charging graduated drop-bottles or those employed with inhalers. "Wellcome" brand chloroform and "Wellcome" brand ether are issued in tubes of 30 cc. and 60 cc. They are conveniently portable, since each tube is packed separately in a wooden container in such a manner that there is practically no risk of breakage by accident.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, the Medical Officer of Health, reports for the month of July, 1907:—Deaths registered in the metropolitan municipalities numbered 596, exclusive of those in the Gladesville and Callan Park Hospitals for the Insane. This mortality is the heaviest experienced in any month for the past five years, and is equal to an annual death-rate of 12·87 per 1000 of the estimated mean population. When corrected by the inclusion of the metropolitan proportion of the deaths in all the Benevolent Asylums and Hospitals for the Insane throughout New South Wales the death-rate becomes 13·94 per 1000, which may be taken as the correct figure. The causes of the high mortality are to be found under the headings of whooping-cough, diseases of the heart and blood vessels, influenza, and bronchitis. The first-mentioned disease was again very fatal this month, and caused 32 deaths, 19 of which were infantile. Diseases of the heart and blood-vessels were responsible for no less than 103 deaths, compared with an average mortality in July in previous years of 69. It is to be noted that the deaths recorded under this heading were largely those of very old persons. No less than 42 of them were among persons of over 70 years of age. Influenza was very prevalent in the city and suburbs during July, and the 9 deaths which were certified as being due to its effects, though excessive when compared with previous months (the total number of deaths from this cause during the first six months of the year was only 5), nevertheless appear surprisingly few. Diarrhoeal diseases were responsible for 15 deaths, 14 of which were attributed to enteritis. Infectious diseases other than diarrhoea caused 56 deaths, of which 9 were due to influenza, 32 to whooping-cough, 5 to diphtheria, 6 to typhoid fever, 2 to measles, and 2 to puerperal fever. Phthisis and cancer were rather more fatal than usual, with 46 and 37 deaths respectively. Bright's disease caused 27 deaths, which is below the average. Respiratory diseases were unusually fatal; 98 deaths were attributed to disorders of this class. The excess was under the heading of bronchitis, which was responsible for 42 deaths, or 10 more than the average for the month. Pneumonia, with 51 deaths, was not more fatal than usual in July. Deaths of infants numbered 130, which is equal to an infantile mortality rate of 101 per 1000 births, a very unusually high rate for July. The excessive mortality was due to the prevalence of whooping-cough and respiratory diseases. The principal causes of infantile mortality were: Whooping-cough 19 deaths, prematurity 27, developmental diseases 29, convulsions 5, respiratory diseases 19, enteritis 9. Of the notifiable infectious diseases, 194 attacks were notified. Of these, 99 were scarlet fever, 78 diphtheria, and 17 typhoid fever. The two former were more prevalent than usual, particularly diphtheria. Typhoid fever was less prevalent than ever before in July. Within the city of Sydney 15 cases of pulmonary consumption were notified under the City Council's by-laws. Eight dwellings were disinfected after deaths from phthisis, and three dwellings after the removal from them of living consumptives.

Municipal Abattoirs.—Local authorities for municipal and shire districts at present collect the licensing fee payable in respect of slaughterhouses, and

in return have the duty of inspecting and seeing that the regulations are carried out. Since the Local Government Act came into operation several councils have desired that the law shall be amended to empower them to levy a tax of a halfpenny upon the carcase of every sheep slaughtered, and the question whether this should be permitted was discussed by the Board of Health, to whom it had been referred by the Department of Public Works. The board thought that the law should not be amended in the direction indicated. Experience had shown that in country districts it was quite impossible for any efficient inspection of carcasses to be carried out by any council so long as the butchers were at liberty to build their slaughtering places where they pleased and slaughter at any hour. The board pointed out that the only possible way to secure systematic and efficient inspection was the establishment of a municipal abattoir in all populous places and the forbidding of private slaughtering within a certain radius.

Whooping Cough Epidemic.—Dr. Armstrong, City Health Officer, states:—"This year there has been more whooping-cough than we have had for many years. The deaths in 1906 from this disease amounted to 2, in 1905 to 3, in 1904 to 64, in 1903 to 42, in 1902 to 55, and in 1901 to 166. This year there have been already nearly as many deaths from whooping-cough as in 1901. It began to affect the death-rate in February—in January there was only 1 death from it—when there were 11 deaths, of which 6 were infantile, under one year. In March there were 13 deaths, of which 10 were infantile; in April 33 deaths, of which 15 were infantile; in May 54 deaths, of which 29 were infantile; in June 33, of which 15 were infantile; and the present month, up to date, 13. That is, a total of 158 up to the present. There are evidences that the epidemic is now declining, for while in May there were 54 deaths, there were only 33 last month, and this month, which is practically finished, there have been only 13. However, it has been a pretty serious epidemic, and it is almost certain that this year there will be more deaths from whooping-cough than there have been for a great many years. The epidemic, as far as is known, has been a particularly severe one, and has been accompanied in many cases by broncho-pneumonia."

The Sydney Water Supply.—Dr. Stokes, Medical Officer for the Board of Water Supply and Sewerage, reports as follows:—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, July, 1907:—

Colour	32° Brown.
Clearness	Marked.
Odour	Nil.
Suspended matter	Very slight.
Total solids	8·7000
Chlorine	3·0500
Free ammonia	·0000
Albuminoid ammonia	·0115
Nitrogen as nitrites	·0000
Nitrogen as nitrates	·0034
Oxygen absorbed in 15 minutes	·0345
Oxygen absorbed in 14 hours	·0625
Permanent hardness	1·8
Total	2·8

NOTE.—Parts by weight per 100,000.

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during July, 1907 —

Final Effluents from -	Turbidity.	Odour.	Parts per 100,000.						Per cent. Purification.				Incubator Test Seven days at 87° C
			Suspended Solids.	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Nitrogen as		Oxygen Ab- sorbed in		Albuminoid Ammonia.	Oxygen ab- sorbed in Four hours.	
							Nitrites	Nitrates	Three Minutes.	Four Hours.			
Chatswood ..	.. Nil	Nil	2.40	11.0	.930	.095	.012	.990	.103	.397	69.4	74.0	No decomposition
Folly Point..	.. Nil	Nil	.05	10.0	1.337	.145	.018	1.000	.085	.433	89.7	85.9	.. ..
Balmoral ..	.. M'k'd	Foul	4.20	12.2	3.385	.861	.112	.168	.681	1.105	62.0	78.9	Decomposed

Plague Rats.—After a lapse of ten days, plague was again discovered amongst the rats last month. Amongst the batch microscopically examined in the Board of Health's laboratory, one taken below Pyrmont Bridge, on the Darling Harbour wharf line, was found to be plague stricken; and another, caught in an old spot of infection above Pyrmont Bridge, was also diseased. According to a return furnished by the Board of Health 1111 rats and 621 mice were destroyed during the week ending July 17, but none was found to be suffering from plague.

What is Vinegar?—A recent legal decision is likely to have disastrous effects on the vinegar trade. Dr. Ashburton Thompson stated that there are in Sydney several firms which produce vinegar in the recognised way, by brewing it either from malt or beer or sugar, and in some cases from wine, or even cider. The effect of the decision, however, is to represent that a mixture of acetic acid and water, coloured with burnt sugar, may be labelled table vinegar and sold as such, though it is perfectly well known that it is nothing of the kind. It is quite true that acetic acid and water was not harmful; and it is quite true also that vinegar—that is the brewed liquor—does contain both acetic acid and water. But it contains other substances as well. The difference as regards the public is a matter of taste; the difference as a matter of trade is one of deception and fraud. It is quite clear that the man who can send to a wholesale druggist for a gallon of acetic acid, which will cost him a very small sum indeed, and after diluting and colouring it, can sell it at the price of vinegar, is, to put it mildly, getting the better of his customers.

Queensland.

Plague.—Dr. B. B. Ham, the Commissioner of Public Health, reports for five weeks ending August 10th, 1907:—*Brisbane.*—Plague in man.—Case 37. A young man, 18 years of age, employed in carting produce, was on the 6th instant declared to be suffering from bubonic plague, and was removed to the Plague Hospital. He died the same night. The premises in which he worked were actively searched, but no infected rats were found. Case 38.—A young man, 18 years of age, was on July 19th declared to be suffering from bubonic plague. He died the same night. The patient resided at Taringa, a suburb four miles from the city, but worked at a produce store in Roma-street. The premises in which he worked are being searched for rats. Case 39.—A domestic servant

(a Queensland born kanaka), male, 21 years of age, died suddenly in a suburb of Brisbane on July 25th. By post-mortem examination it was discovered that he had died of plague, and this was confirmed by bacteriological examination. The kanaka had recently been handling old produce bags in a grocer's shop in the centre of the city. The place of residence was perfectly clean, and the grocer's premises are now being searched for rats. There were 1630 rats and 220 mice destroyed, 1223 rats and 210 mice examined, and 7 rats were found infected; last infected rat, August 6th. No case of plague has occurred in Brisbane since July 26th.

Leprosy.—The new lazarette on Peel Island is now occupied. Dr. Ham, Commissioner of Health, referring to the lazarette, has pointed out that each patient has a separate and commodious hut or house to himself. Mild cases are kept apart from the more severe cases. Whites are kept away from blacks, and there is strict isolation of sexes. The different types of the disease are also kept separate. Referring to the case of the two white girls from Charters Towers, the Commissioner said that they were examined by a doctor who had had experience of leprosy in the East, in Norway, and in other places, and his opinion entirely corroborated the diagnosis of the medical men in Brisbane and Charters Towers.

Attention has been directed (says the *Brisbane Courier*) to the case of a man, said not to be a leper, who had been camped in a tent on Friday Island, and was brought to Stradbroke Island with the party of lepers carried by the Government steamer Otter. The Home Secretary says that the man was a South Sea Islander named Sam Savu. In 1901 he was reported by the Hon. John Douglas at Thursday Island as being suspected to be suffering from leprosy, and was examined by the former doctor. Dr. Wassell, at present at Thursday Island, in a report on June 24th, stated that the man came under his notice about six years ago, when he was liberated. About four years ago he again came under Dr. Wassell's notice, but although the bacillus of leprosy was not discovered he considered it was not advisable to allow the man to be at liberty. He was accommodated in a tent on Friday Island, but lately was allowed to go into the leper area and obtain his food from the kitchen. The man became a cripple, and was unable to look after himself. At his own request he was sent down by the Otter with the other patients in order that his case might be reported upon. Dr. Wassell believes him to be suffering from leprosy in the anæsthetic form, and

the absence of bacilli does not shake his opinion. It is pointed out in the report that in any event the man would have to be maintained at Government expense. The Home Secretary proposes to get the Commissioner of Public Health to examine the man.

Victoria.

Rat Destruction.—Good work in the destruction of rats has been done in Melbourne. The municipalities which have combined in this work have, by the expenditure of a little over £5000, been instrumental in the destruction of half a million rats since the year 1900, of which 120,000 were killed at a cost of £1000 during the period between December, 1905, and June, 1907.

Milk Standard.—Dr. Norris, chairman of the Board of Public Health and of the foods standard committee, has made a statement in reply to the suggestion of the Malvern Bench that the standard of milk fixed under the Pure Foods Act should be lowered. This suggestion has been also put forward by milk vendors recently prosecuted for selling inferior milk, the reason submitted being that milk which has been left some hours becomes far above the standard on the surface, but inferior towards the bottom of the can. Dr. Norris said, regarding this question, the committee took into consideration the explanation put forward when fixing the standard. To show how unreasonable any relaxation would be at the present time, it may be said that over 90 per cent. of the samples which have been taken by the board's officers during the last two or three months have contained nearly 4 per cent. of fatty solids, or over one-half per cent. above the standard. The probabilities are that the board will very shortly raise the standard of milk, but the differences in the milk at different seasons of the year will be recognised. Probably there will be established one standard somewhat on present lines for the spring and early summer months, and a higher standard, in conformity with its experiences of a large number of samples, for the remainder of the year. Dr. Norris has had a lengthy list prepared showing the analyses of the samples taken by the board and municipal officers during the last 12 months. Very few analyses show a percentage of 3·3 of fatty solids—the minimum allowed by the Act. The percentage is either far above the minimum—in the majority of cases in autumn and winter over 4 per cent.—or a good deal below the amount required. A regulation under the Pure Food Act passed by the Board of Health has been approved by the Executive Council. Its object is to prevent the contamination of milk during its conveyance from the dairy to the retail vendor, and it provides that, except in cases where the milk is personally conveyed by the producer to the retail vendor, it must be placed in receptacles securely closed by a leaden seal or a lock.

South Australia.

Health of Adelaide.—The Officer of Health reported that during the fortnight ended July 20th two cases of typhoid fever, one of diphtheria, and nine of pulmonary tuberculosis were notified. Both cases of typhoid fever were imported from the suburbs for hospital treatment. The case of diphtheria was removed to hospital for isolation and treatment. Of the nine cases of pulmonary tuberculosis six were imported for hospital treatment. Of the remaining three cases

one was removed to hospital and two were at home under the city trained nurse's supervision. The city trained nurse has made 113 visits to 64 cases during the fortnight, and finally disinfected 13 houses. Of the 64 cases under her care one was suffering from typhoid fever, one from diphtheria, one from erysipelas, six were suffering from scarlet fever, and 55 from pulmonary tuberculosis. The secretary reported that the Mayor and the officer of health, accompanied by the Chief Secretary, had inspected the men's camp at the Old Exhibition Building. The officer of health and the City Surveyor would prepare a scheme, to be submitted to the committee for approval, before it was sent to the Government for consideration.

Vaccination.—The attention of the Chief Secretary, Hon. A. A. Kirkpatrick, has been directed to the supply of calf lymph for vaccination purposes. He called for a report on the subject, and has received the following from the Vaccination Office:—"Act No. 554 of 1892 directs the vaccination officer to supply calf lymph to every parent who within six months after the birth of any child requires same, and as all children visited by the police must be over six months it will be seen that legally none of the persons to whom the paragraph refers is entitled to a supply from this department. However this clause has not been enforced by the vaccination officer, and all applications are met. During this year 230 tubes of calf lymph have been distributed from this office, and no applicant has been kept waiting for lymph longer than a week. Last year about 100 tubes were over-estimated, and consequently wasted, as the lymph becomes inert if kept in stock longer than a month. This department received no intimation of the intention of the police to institute legal proceedings against parents, but the moment the fact was noticed 100 extra tubes were cabled for, in addition to the 30 per fortnight ordered. If an epidemic of smallpox broke out, the department would be informed in sufficient time to enable it to meet all possible demands likely to be made upon it. Thirty tubes just to hand will be sent out at once, and then all applications from parents will have been supplied. It is also pointed out that this department in no way influences the Police Department in any legal informations they may lay under the Vaccination Act of 1882."

Tasmania.

Health of Hobart.—The Medical Officer of Health, Dr. Sprott, reports that during the month of June there were 57 deaths in the registration district of Hobart, but five of these were of persons not usually resident in the district. Of the above, in the city proper, there were 34 deaths, viz., 18 males and 16 females, giving a death-rate of 16·54 per 1000 per annum. The principal causes of death were:—Typhoid, 1; pneumonia, 2; phthisis, 3; cancer, 3; tuberculosis, 3; premature birth, 2; convulsions, 2; heart disease, 3; old age, 6; and the remainder of a general character. Five were under 1 year of age; 1 between 1 and 5 years; 18 between 5 and 65 years of age; and 10 over 65 years of age. The total number of births registered in the district was 80, viz., 41 males and 39 females; in the city proper, 62, viz., 33 males and 29 females.

Health of Launceston.—The Health Officer, Dr. L. Grey Thompson, has submitted his half-yearly report on the health of the city as follows:—"One hundred and sixty-eight males and one hundred and

sixty-one females were born, and ninety-one males and eighty-four females died during the period. Of the gross number of deaths 4·8 per cent. died from tuberculosis diseases, 3·6 from cancerous diseases, and 0·6 from notified diseases. The protection of infant life has been a subject of continual discussion; 12·1 per cent. of the gross number of deaths were those of infants under 12 months old, compared with 28·9 per cent. for the corresponding period in 1906. Despite the advances made by sanitary science, the death-rate is as high as it was fifty years ago. In the 19 years ending in 1902 inclusive there were 345,096 deaths of children under five years of age in Australia and New Zealand. The methods of grappling with the waste of infant life are:—(1) Providing a nurse inspector, who demonstrates and distributes literature. (2) Supply of guaranteed milk by the local authority. (3) Bounty system. (4) Foundling system. In a matter of this kind poverty is the prime factor. Financial assistance is the sovereign remedy. For a number of years a committee of ladies have been demanding that some further legislation should be resorted to with the object of preserving infant life, and their wishes are to be given effect to. During the half-year a woman who was registered as a nurse of three infants was punished for a breach of the Police Act. The three registered infants are alive, but it was proved that she had nursed others surreptitiously, and for a period of 27 days her dwelling was overcrowded with adult and infant borders. Food poisoning has been reported on more than one occasion. MacFadyen classifies the subject under the following headings:—(1) Poisons formed before entering the body. (2) Poisons due to Gærtner organisms. (3) Poisons due to bacilli, intermediate between typhoid and Gærtner organisms. In one group of cases the signs of irritant poisoning were of such a character that it was a question whether metallic poisons, which could be detected by chemical analysis, had been accidentally or intentionally introduced into the food, an examination of the circumstances indicated that the meat was not putrescent, and the brine was fresh. Several hundredweights of meats were laid down in the same pickle, and no symptoms of gastro-intestinal irritation were exhibited by those who consumed it. On the premises, however, was a broken closet pan, and the lid of the vessel in which the brawn was cooked was made of wood, and it was probably infested with micro-organisms. One case of enteric fever was reported from a dairy which supplied 61 families; no person, as far as we are aware, was infected by the milk, which was purveyed by the proprietor.

West Australia.

Infectious Diseases Hospital.—A deputation recently waited upon the Colonial Secretary and asked that £25,000 should be placed on the estimates for the purposes of an infectious diseases hospital at a site between Boulder and Kalgoorlie. It was shown that 846 cases of infectious diseases had occurred during the past three years, and that the general feeling on the goldfields was that some special provision should be made in that respect. The Colonial Secretary stated that although he did not think it would be necessary to spend £30,000, half of which the Government would be expected to find on such an establishment, it intended to provide something for the purpose.

Lady Edeline Strickland has promised an annual prize of a nurse's bag to the nurse who does best in her final examination at the Queen Victoria Hospital for Women in Launceston.

Enteritis on the W. A. Goldfields.

DR. CLELAND, Government Pathologist and Bacteriologist, West Australia, who went to the Boulder recently to inquire into the cause of an outbreak of enteritis there, has submitted the following report to the Principal Medical Officer (Dr. Lovegrove):—

"Contributing Causes of Outbreak.—These cases of enteritis, though not confined to, have had their greatest incidence in infants, and some of the causes operative in young children can with reason be also attributed in older ones and adults. Everywhere bowel complaints, such as acute and chronic enterocolitis, are common in infants, and are especially prevalent during summer and autumn, when milk food turns sour (through multiplication of germs) so rapidly and flies are numerous. In the autumn, especially, infectious diseases are apt to be prevalent, and the more so the more unseasonable (i.e., summer-like) the autumn. The present autumn on the fields has been of this nature, i.e., cool nights and warm days, with late appearance of true winter rains. The present outbreak, then, seems an aggravation of the ordinary enterocolitis of infants, especially aggressive at Boulder and the neighbourhood; less so at Kalgoorlie. Two prime factors seem at work in an outbreak such as this, viz., food and food supply, on the one hand, and infection from one case to another, on the other.

"Food and Food Supply.—For the feeding of infants milk and all foodstuffs should be thoroughly sound and fresh. The slightest departure from normal may set up a diarrhoea, which may develop into enterocolitis, and be fatal, apart from infection from previous cases. Moreover, such an infant may infect healthy ones from its discharges, causing in them enterocolitis. The following errors in respect to food and feeding have been contributing causes, and in some cases probably the sole cause of many cases of enterocolitis on the fields:—1. Giving the infant which should be on the breast, or a substitute for the breast, or on milk foods, such articles from the grown-ups table as potatoes, meat, cake, bread and butter, etc., during the first few months of life. The infant is quite unable to digest and assimilate these, and they remain in the alimentary tract as foreign bodies, to decompose and set up extreme irritation and diarrhoea. Once started, it may be impossible to arrest the latter; the motions become green and ill-smelling, and death, with extreme emaciation, may result. In spite of continued warnings it often happens that, to appease the infant's crying (caused by pain due to previous wrong feeding), the parents give it anything that is going. 2. Cow's milk which is the slightest bit sour is teeming with organisms which change its structure, and produce irritants to the child's digestive tract. This change alone may cause severe enteritis. Parents cannot be too careful in seeing that the jug left out for the morning's milk is scrupulously clean and protected from dirt and dust, as the least remains of sour milk or of dirt (both teeming with organisms) may cause rapid multiplication of bacteria in the fresh milk, and turn it sour. The milk must be absolutely protected until consumed. Cleanliness on the part of dairymen in milking and handling the milk are supervised by the sanitary inspectors to ensure the supply of pure, fresh milk to the consumer; and though the milkmen are sometimes perhaps at fault, the customer is usually so to a greater extent. 3. At several of the dairies I noticed ordinary beer or whisky bottles, which, filled with milk, were supplied to those customers wanting the 'milk from one cow' for their infants. These bottles were some-

times scalded by the customer, sometimes by the milkmen, before being filled. Sometimes they were scalded by the customer and left uncorked, so that dust could enter and turn the milk sour. At one dairy the milkman was using as 'corks' pieces of ordinary newspaper! These insanitary methods are bound to react unfavourably in the infant, and, apart from this, the average milk from a herd of healthy cows is much more likely to agree with any infant than that from one animal, which may be too rich or too poor, and only incidentally is of average quality. 4. Instructions have already been issued to mothers giving directions as to how to dilute average cow's milk to make it approximate to that of the mother. For infants who are well this should be implicitly followed. If the child becomes unwell in the slightest it should be at once taken to a doctor. Unfortunately, on the fields, fresh milk is expensive, and often difficult to secure. Under such conditions certain well-known infants foods, diluted strictly according to instructions, may be substituted under medical direction, taking care to prevent scurvy, which is more common in infants than is supposed, by adding some fresh constituent occasionally to the dietary, such as raw meat juice or the juice of an orange. Goats' milk is very suitable for infants, approximating more to mother's milk than does the cow. 5. An infant must not be fed whenever it cries, but at regular-timed intervals. It will soon get accustomed to this, and thrive on it. Often the crying of an infant is not a demand for more food, but an indication that the previous food is irritating the infant. Undiluted cow's milk, for instance, forms a massive curd in the infant stomach, which cannot be easily digested, and causes pain. Properly diluted cow's milk and maternal milk forms a more flocculent curd easily diluted. The intervals of time for feeding have been circulated in the leaflets distributed. 6. As milk, when it reaches the consumer, has already a number of germs in it, it should be always scalded before use. The same remark applies to all water used. 7. In some quarters suspicion has attached to the Goldfields' Water Supply. I visited the reservoir, but could find no possible source there of contamination. Various suggestions were made that the 'dead-ends' of the pipes might be a breeding ground for bacteria. Samples from several of these were taken and sent to the laboratory, where Dr. Blackburne found them, from a bacteriological point of view, remarkably pure. I do not think that any possible suspicion can attach to the water.

"*Infection from one case to another.*—The infectivity of these cases of gastro-enteritis has been proved in large general hospitals. For instance, in summer time, when the children's ward has been full of such cases, some surgical cases otherwise quite healthy may be admitted, and in spite of all precautions and proper and regular bottle-feeding, may develop gastro-enteritis. There is evidently, then, some means of infection from one case to another, and, as in the South African war, the rôle of flies in the spread of typhoid fever and probably dysentery was amply proved, a similar factor at once suggested itself on the fields. It was soon found that during the last few weeks the flies had been very numerous and pertinacious. This could be attributed in great part to the weather conditions. It was not cold enough to kill the flies, but at night and in the morning it was cool enough to drive them indoors. During the warmth of the day they could leave any particular house and fly outside, to be driven into another dwelling as evening came on. This rôle of flies was strongly supported by the weather conditions which favoured this method of spread, and by the localised prevalence at Boulder, where probably a few cases once

started caused the complaint to reach epidemic proportions.

"*Preventive Measures.*—As already telegraphed, these have consisted in distributing by leaflets and advice information respecting the above means of conveyance of the disease and various methods of checking its ingress. In these measures the three local boards and their medical officers of health are rendering every available assistance. In addition, I have sketched out a third skeleton leaflet specially dealing with the disease, and have submitted it to the two medical officers of health for their additions and revision, and have suggested that copies be printed and distributed. I append a copy of this. I am strongly in favour, if it can be accomplished, of the appointment of a nurse thoroughly trained in a large hospital as to the care of children, to visit personally not only those householders where the infants are sick, but also those in which they have so far escaped the disease, but may fall a prey at any time. She would need to be thoroughly versed in her subject, and a woman of great tact, and if possessing these qualities there is no doubt that incalculable good might be done.

"*Clinical and Post-mortem Signs of Enteritis at Kalgoorlie and Boulder.*—In infants the usual signs and symptoms of entero-colitis were present, viz., greenish and foul-smelling motions, sometimes with mucus streaked with blood, diarrhoea, occasional vomiting, earthy pallor and wizened appearance, loss of elasticity in the skin, slight rise of temperature in some case, etc. Some practitioners noted especially an enlargement of the liver, which was palpable below the ribs. In older children and adults the symptoms were chiefly those of severe diarrhoea, with mucus and streaks of blood in the stools. Through Dr. Palmer (Medical Officer at the Kalgoorlie Hospital) I was enabled to be present at a post-mortem on an infant of 8 months, who had been six weeks in the hospital with diarrhoea and green motions, and died of collapse. The liver was very large and fatty, and of a pale yellow colour; the spleen a little enlarged and firm; there was considerable congestion in the large intestines, and a few congested areas in the small. This large pale, fatty liver is not of common occurrence in these cases, though I have seen two previous ones elsewhere. The fatty change is undoubtedly due to the absorption of some toxin, the result of bacterial action in the alimentary tract, which is brought to the liver by the portal vessels and there exerts its influence in inducing fatty degeneration, being probably there prevented from entering the system at large. This fatty change suggests analogies with acute yellow atrophy, which is also of (unknown) toxic origin. It is especially interesting in this connection to find that some of the deaths were registered as 'gastro-enteritis meningitis,' which point to severe nervous phenomena appearing towards the end (as in acute yellow atrophy), due probably to two factors—alteration in the functions of the liver by which toxic bodies enter the general circulation, and loss of fluids from the diarrhoea."

The Border Medical Association. — The quarterly meeting of the Border Medical Association was held at Benalla on June 25th, 1907. Present: Dr. Henderson (Wangaratta), President, in the chair, and Dr. Boyes (Wangaratta), Woods (Albury), Nish, Nicholson and Barrington (Benalla), and Lang (Corowa). After the usual private business of the Association had been transacted, Dr. Nicholson read a paper on "The Treatment of Pneumonia." The next quarterly meeting will be held at Wangaratta in September.

HOSPITAL INTELLIGENCE.

Queen Victoria Memorial Hospital, Melbourne.—The tenth annual meeting of the Queen Victoria Memorial Hospital for Women and Children was held last month. In the report for the past year it was stated that 274 patients had received treatment at the hospital, while 43 major and 90 minor operations had been performed. The number of medical cases was 108. The attendance of out-patients totalled 14,632, of which 3593 were new cases. The number of casualties was 24. Although the revenue for the past year had been well maintained, the growth of the income had not been proportionate with the work of the hospital. The want of room was keenly felt. His Excellency, in moving the adoption of the report and financial statement, lauded the work done at the hospital for women by women, and expressed a hope that a liberal public response would result from the appeal for £2000, by one shilling subscriptions, to be made by the committee of the institution to the women of the State. Mr. Max Hirsch, in seconding the motion, said it was to be regretted that two metropolitan hospitals, both for women, should be making an appeal for public assistance at the same time. He said that arrangements had already been concluded by the committee of the Queen Victoria Hospital in connection with the collection of additional funds for the institution. When the project of the Women's Hospital became known co-operative effort could not be brought about, and he hoped the support given to both hospitals would be generous in the extreme. At the conclusion of the proceedings his Excellency declared open the clinical laboratory which has just been completed at the hospital.

Melbourne Hospital.—At a meeting of the committee of management of the Melbourne Hospital last month the annual meeting was fixed for Wednesday, July 24th; date of election of medical staff, Tuesday, July 30th. The committee adopted a recommendation of the house committee to alter and improve the hospital kitchen at a cost of £250. This, it was stated, was an absolute necessity, for under present wasteful and obsolete methods the hospital was not only losing money, but the food of patients and hospital attendants was not satisfactorily prepared. Jacketed pans and improved steam cookers are to be installed, and these may be transferred to a new hospital if desired. The quality of some of the food supplied to the hospital is to be improved.

The 60th annual meeting of the governors of the Melbourne Hospital was held in the hospital board room on July 24th. The sixtieth annual report of the committee of management stated that the committee was in a position to present a statement of accounts showing a balance on the credit side of £2742 9s 2d. While the committee was gratified to be in a position to report an advance in the scientific value of the hospital, and an additional effectiveness in its methods of work, it had to express regret that its efforts on behalf of the institution had been much hampered by the consideration that, in view of the proposed reconstruction of the hospital, it was inadvisable to proceed immediately with certain much needed additions and improvements. Those made, however, might be utilised if the rebuilding scheme were carried out. The committee, after careful consideration, had come to the conclusion that in a scheme of rebuilding the only site preferable to the present one was the site now occupied by the horse and pig market, on Sydney-

road. The total number of patients treated during the year was 25,639, including 5060 in-patients, 12,118 out-patients, and 8461 casualty cases. Of these, 210 in-patients and 279 out-patients were old-age pensioners, 152 were consumptives, 166 were cancer cases, and 698 were police cases; 154 children under 15 years of age were treated in the wards, and 983 in the out-patients department. The committee had, in previous reports, referred to the unsuitability of the institution, situated as it was in a crowded city, for the treatment of patients suffering from phthisis; but, notwithstanding the relief given by the Austin Hospital and the Consumptive Sanatoria to these cases, the Melbourne Hospital was still obliged to receive numbers of patients who were in an advanced stage of this disease, and were unable to obtain relief elsewhere. Regret was expressed that Dr. Amess was relinquishing the office of medical superintendent, after eight years' service.

Launceston Hospital.—At the ordinary monthly meeting of the board of management of the General Hospital held on July 18th a letter was read from the Chief Secretary concurring in the proposal to erect a children's hospital on the grounds attached to the institution, on the understanding that a plan showing the exact site for the building was submitted for approval, and that the requirements of the Public Health Act were complied with. As regarded the proposal to expend the balance of last year's Parliamentary grant in providing accommodation for out-patients and a dental department, he desired to be informed of the amount of surplus and the estimated cost of the proposed accommodation. A reply had been sent to Mr. Evans that the surplus would be £314, and the estimated cost of the accommodation would be stated when the plans and estimates were furnished by the architect. Some consideration had been given to the appointment of honorary masseurs to the hospital, but the committee is of opinion that before anything is done in this respect the Government should be communicated with as to whether there would be any objection on its part to the appointment of one or more such honorary officers. The accounts for the year showed a sum of £314 11s 8d to credit, which is to go in part payment of the proposed erection of an out-patients' and dental department. The following letter from the Chief Secretary was read:—"I have the honour to inform you that the complaints made by the medical practitioners relating to the Launceston General Hospital, together with the comments of the board of management, have been receiving consideration. Ministers are of opinion that the board should have proceeded in the usual way in the matter of filling the appointment of junior house surgeon, namely, by advertising in Tasmanian papers, as well as those of the other States. I might also observe it would have been a more proper course for the board to have ascertained, before taking any outside action at all, whether the proposal to increase the medical staff met with the approval of the Government. The action of the board in seeking the concurrence of the Governor-in-Council after the candidate was practically appointed was quite irregular. The other matters about which complaints have been made, as the law now stands, come entirely within the jurisdiction of the board, and Ministers prefer to let Parliament decide the lines upon which the institution is to be worked in the future. It is the intention of the Government, as I previously informed you, to introduce new hospital legislation during the approaching session, and members will thus have an opportunity of hearing the pros and cons of the conditions now prevailing at

the Launceston Hospital, and of deciding whether or not they are to be allowed to continue. I will submit the matter of increasing the surgeon-superintendent's salary to the next meeting of the Executive Council, but you must understand the granting of approval, if it is given, must not be taken as an indication that the policy of allowing Dr. Ramsay to do outside work complained of is concurred in by the Government. The new appointment will also be dealt with at the same meeting." The chairman had replied as follows:—"I have the honour to acknowledge the receipt of your communication of the 8th inst. Re the appointment of the assistant house surgeon, it appears to me that undue importance is being attached to this matter, and I therefore desire to submit the following considerations as a justification, from our standpoint, for what has been done: (1) There is no rule requiring that advertisements should appear before making such appointment; and it should be especially borne in mind that in this instance the appointment was a very unimportant one, the salary being not more than £50 per annum. (2) With reference to advertising in Tasmanian papers, this would have been of doubtful advantage, seeing that the person required for the position should be one who had just completed his University course, and I am not aware that any such candidate could be found in Tasmania. (3) Had there been 50 applicants we could only have chosen one, and the one appointed, so far as we know at present, suits our requirements. Moreover, it is intended that every year, or at most two years, a fresh appointment should be made, thereby giving facilities to a succession of young medical men for receiving all the advantages of an additional year's training before entering upon private practice, thus benefitting in perpetuity the medical profession. (4) The appointment was made subject to the approval of the Governor-in-Council, and, so far, the usual practice was observed. This is the course pursued in the appointment of the hon. medical staff, but I admit a mistake was made in notifying Dr. Sweetman of his appointment before the consent of the Governor-in-Council had been received; and, had we known the Government would have attached so much importance to the matter, we should have been careful to observe the usual practice. But, as I explained in the previous communication, in this instance the case was very urgent, as the resident medical officers had been for some months past considerably overworked, consequent upon a large increase in the number of in-patients." A letter was received from Alfred Green and Leslie E. Morgan, forwarding a petition from 45 centres or districts in Northern Tasmania, signed by 8041 persons, requesting that rule 65, allowing the surgeon-superintendent consultation practice in the city should not be rescinded. The petition was received. Dr. C. J. Pike moved—"That rule 65 be altered, so as to read: 'He shall not be concerned in any medical or surgical practice, or in any business than that of the hospital; and, further, that three months' notice of such alteration be given to the surgeon-superintendent.'" He spoke at considerable length in support of his motion, and read a letter signed by 15 medical men of Hobart, expressing disapproval of the surgeon-superintendent being allowed private practice. Dr. Pardey seconded the motion. A long discussion followed, in the course of which the chairman made a vigorous defence of Dr. Ramsay, and his being allowed consultation practice in the city. An amendment—"That this board reaffirms the principle that the public, as taxpayers, have the right to the service of the surgeon-superintendent; that to deny them this right would be productive of serious injury to patients;

and we are of opinion that the existing provision in rule 65 sufficiently protects the interests of private medical practitioners," was carried by 7 votes to 5.

Tasmanian Consumptives' Sanatorium.—The first annual meeting of supporters of the Tasmanian Consumptives' Sanatorium was held last month in the Hobart Town Hall. The report was as follows:—"A public meeting was held at the Town Hall on March 28th, 1905, of those interested in the formation of a Sanatorium for Consumptives for Tasmania, at which a general committee was formed to carry it into effect. The late Hon. W. G. Gibson gave a cheque for £100 towards starting the sanatorium. The first meeting of the general committee was held on April 4th, the Premier (Hon. J. W. Evans) in the chair. The members of the executive committee took the matter in hand at once, appointing a sub-committee to inspect and report on any suitable sites available. After making various enquiries and inspecting any likely places a letter was received from the Chief Secretary promising the temporary use of about four acres of land at the rear of the New Town Charitable Institution. Your committee met with great opposition from some of the residents of New Town, and were requested, if possible, to find another site. The committee, after many inquiries, could not do so. A letter was received, dated April, 1906, that the Government would issue an occupation license to the committee for the land at New Town at a yearly rental of 5s. Tenders were immediately called for the erection of shelters, etc. A tender for £105 was accepted, and the work was forthwith proceeded with, and arrangements were made for securing a matron to take charge. Mr. Edwin Rogers offered to erect a shelter, to be called the 'Alan Rogers Chalet,' as a tribute to the memory of his eldest son. Mr. Rogers also offered to maintain the same for ten years, which was thankfully accepted. This has been completed, and has been a great help to the sanatorium. Mr. Rogers also had a large tent erected on a boarded platform for use of one patient, and also subscribed 5s per week for three months. On December 5th, 1906, his Excellency Sir Gerald Strickland opened the sanatorium in the presence of a large gathering of prominent citizens. When the shelters were erected and paid for, patients admitted, and things were running smoothly, the committee were confronted with the urgent need of funds, which became so acute that the ex-committee were compelled to wait upon the Hon. the Premier and put the case before him, trusting that the Government would come to our assistance to prevent the closing of the sanatorium. £50 was promised for immediate use, and £1 for £1 up to £200 on the coming year's collections at the same time. Our urgent necessity being made known, many ladies and gentlemen very generously came forward with subscriptions and donations, which have made our position much safer. During the short time the Sanatorium for Consumptives has been opened, one patient has been discharged cured, and the other patients are reported as doing well. The balance-sheet to June 30th showed receipts £453 18s 3d, and expenditure £400 14s 11d."

King's Tableland Sanatorium, N.S.W.—The new ward at the men's sanatorium of the Queen Victoria Homes for Consumptives, King's Tableland, which is the gift of Mr. and Mrs. Hugh Dixon, was formally opened last month. The new wing brings the capacity of the home up to 54 patients. The institution does not deal with any cases but those which offer a reasonable chance of a cure. It is in no sense a home for incurables, and when a case reaches such a stage that there is no hope of ultimate recovery, then the patient must give

place to another. On this principle the home does a big work in arresting the progress of consumption in individual cases, and in checking its spread in the community. Over 300 patients have been treated in the institution during its three or four years of existence, and out of that number over 200 have been sent out with their cases endorsed "disease arrested." Many of these "arresteds" have been kept in touch with since their departure from the home, and in a great percentage of the cases the patients have completely recovered. The recovery is especially noticeable in the instances where the patients have taken the advice of the medical superintendent and gone away into the country. The least satisfactory results are noticeable among those who return to the cities and reside once more in crowded, ill-ventilated houses, and take up again a life that inevitably tends to undo any good that is accomplished during the patient's sojourn at the sanatorium. The wing has been constructed at the northern end of the institution. There are six rooms, 12 ft. by 10 ft., and 12 ft. 6 in. high, four with five and two with six windows, and each with two doors. All are lit with acetylene gas. A verandah 10 ft. wide runs the length of the wing on the east side, while on the west a broad, airy passage-way connects the whole of the wards, at the same time providing access to three bath-rooms, in which hot and cold water are laid on, locker-rooms, and other conveniences. The structure is of wood, with pressed iron lining throughout, and is built on the most modern principles, especial care having been taken to round off all corners and mouldings to obviate the collection of dust. The cost of the new wing has been about £1200.

Victorian Sanatoria for Consumptives.—

The eighteenth annual meeting was held on August 1st. The balance sheet showed an overdraft on June 30th of £1375. The report stated that the Inspector of Charities had drawn attention to the large number of paying patients in proportion to the part paying and free at the time of his visit. It had been explained that the reason of a larger than usual number of paying patients being then at the institution was that as there were no part paying or free males waiting for admission, and a ward being empty, the paying female patients were accepted. The committee decided that the old proportion of 36 free beds (including part paying patients) to 24 full paying patients was to be observed. The report concluded by saying that it was the unpleasant duty of the committee to report that it was quite impossible to continue to place the advantages of the institution at the disposal of the number of patients for whom provision was now made unless a very material increase in public support was accorded, and, bearing in mind the very limited grant received from the charity vote (£300), as compared with other charities, it was felt that an appeal to the Government for greater assistance should meet with a ready acquiescence. Unless the committee could be assured of the success of these appeals, the question of continuing the establishment would have to be seriously considered. The chairman said there was no gainsaying the fact that for some unaccountable reason the institution was not a popular one. He sincerely trusted, however, that the public might, by making themselves acquainted with the work it was doing, raise the importance of assisting the committee by financial contribution. On July 1st, 1906, there were 61 patients in the institution. During the year 102 patients had been admitted to the Echuca Sanatorium and 91 to the Macedon Home; 136 were discharged cured or relieved,

39 were discharged incurable, 7 at their own request 8 died, and on June 30th, 1907, 64 remained. The average cost per patient per annum was £80 4s.

Women's Hospital, Melbourne.—At a meeting of the Women's Hospital committee on August 2nd a letter from the honorary medical staff earnestly requesting that body to have by-law 25 altered so as to give control of the out-patients' department to the honorary assistant surgeons was considered. Dr. Horne, secretary of the staff, wrote that the alteration would have the support of all the indoor infirmary surgeons. It was suggested that the existing by-law be altered to read as follows:—"The honorary medical staff shall consist of twelve honorary medical officers, four of whom shall be called infirmary surgeons, and shall have charge of the infirmary department; four shall be called assistant surgeons, and shall assist the infirmary surgeons in the treatment of indoor patients, and shall have charge of the outdoor department; and the other four shall be called midwifery surgeons, etc., etc." Dr. R. H. Fetherston, a member of the honorary medical staff, said he had been asked by that body to support the proposal. When the last revision of the by-laws took place, the alteration in question was by some means overlooked. The whole of the members of the staff were unanimous in the opinion that the by-law should be made to read as suggested, and the same course was adopted in every other hospital. Dr. Cuscaden said he agreed with the other members of the staff that the alteration was desirable. The committee agreed to submit the proposed alteration for adoption by the subscribers.

Austin Hospital for Incurables, Melbourne.

—The twenty-fifth annual meeting of subscribers to the above institution was held last month. The report stated that the accommodation at the hospital had been constantly occupied during the year, the number of cases admitted having exceeded by over 25 per cent. the number of the previous term, which had till then been the highest on record. The daily average attendance of patients had been 195, as compared with 169 in 1905-1906. The principal feature of the year had been the work carried out in the consumptive department. The hospital now accommodated 105 consumptives—60 men and 46 women. The experience of the period under review had clearly demonstrated that still further accommodation was needed in this department, while it had frequently happened that applicants for admission to the cancer ward had died before room could be found for them. There was also urgent need for increasing the number of beds in the general wards. There were at present 18 men and 30 women waiting the occurrence of vacancies in the general wards, several of whom lodged their applications over two years ago. The sum of £8646 had been received during the year. Of this amount, £5714 was classed as "ordinary" and £2931 as "extraordinary" revenue. The ordinary revenue, as compared with that of the previous year, showed a falling off of £180, of which £100 was under the heading of "patients' contributions" and the rest was more than accounted for by the entire cessation of the use of collecting cards in State schools. The average cost per bed was £42 7s 4d. No less than 30 per cent. of the amount expended during the year on maintenance had been obtained from legacies and bequests. It is suggested that the Government should afford the institution greater assistance than it had in the past in treating advanced cases of consumption. Out of £8000 which was expended yearly in maintaining the hospital, the Government contributed

only £1000, which was not one-third of the sum that the institution should receive, as compared with the State aid given to other charities. Subscribers should enter their strong protest against the way in which the hospital had been treated by the Government, which should apportion its charity vote more evenly amongst the different charities.

Royal Hospital for Women, Sydney.—

At the board meeting of the Benevolent Society of New South Wales held last month Miss M. Thomas was appointed matron of the Royal Hospital for Women, Paddington. During the month of May 163 women were dealt with in the wards, 47 children being born in the obstetric department; 19 children were also born in the homes of the poor under the care of the hospital nurses. At the outpatients' department at the hospital 130 different women received surgical aid and advice. In connection with the consultation for infants attached to the hospital 64 different children were cared for. At the society's Asylum and Hospital for Infants, Thomas-street, 89 women and 90 children were dealt with during May.

Sydney Hospital.—At the last monthly meeting of the board of directors, on behalf of the board the president welcomed Sir Henry Stephen on the occasion of his taking office as a director. Mr. James Matthew Dunlop was elected a life governor in respect of the sum of £50 allotted to the Sydney Hospital under the will of the late William Phillip Dunlop, deceased. There have been admitted as in-patients 331 new cases, making 2256 admissions for the half-year. In the outpatients' department 1131 new cases have been treated, the number of attendances of old patients being 7080. In the casualty department 965 new cases have had their wounds, etc., dressed, while the number of attendances of old patients reached 2925. The total number of new cases treated in the various departments of the institution thus amounts to 2427 for the month.

Rockhampton Hospital.—At the last monthly meeting of the committee of the Rockhampton Hospital the Under-Home Secretary (Mr. W. H. Ryder), in reply to a letter raising the question of the relationship of the hospital to the department in the matter of the admission and treatment of plague patients, forwarded a copy of a report which had been received from the Commissioner for Public Health (Dr. B. B. Ham) for the information of the committee. The resident surgeon reported that 48 patients were admitted in May and 50 discharged. The deaths numbered 4—3 males and 1 female; 62 patients were in residence on May 31st. The outdoor patients treated in the month was 87. The daily average of indoor patients for the 31 days was 65·7. The improvement committee reported that the underground tanks had been thoroughly cleaned, and all the inlets had been trapped with gratings. With reference to the alteration of the water service, the committee suggested that the connection be made with the main at the rear of the hospital, all the taps to be generally on the ground floor. The attention of the committee had been drawn to the very great necessity for an up-to-date steriliser and a proper laboratory, the want of which seriously hindered and handicapped the efficient working of the institution. The matter wanted early and serious consideration now that the hospital was a base hospital. The large sum of money spent on the improvements that had just been finished had added very considerably to the appearance of the buildings and to the comfort of the patients and staff alike, and what was of the greatest importance, had arrested general decay—a work that had been put off from year to year on

account of insufficiency of funds. There was still a lot of work required to bring the hospital into line with other institutions of similar standing. The committee finally suggested an appeal to the general public for funds for the steriliser and laboratory. The president thought that the latter part of the report should be considered at a special meeting. Dr. Callaghan said it was important that the hospital should have a steriliser and laboratory. It was agreed on the motion of Dr. Brown to defer consideration of this matter until the special meeting, the mover remarking that the report was the most important that had been brought before the committee for the last 12 months.

The Women's Hospital, Sydney.—At the usual monthly meeting of the board of directors held on July 31st, the hon. treasurer's financial statement as placed before the meeting showed a credit balance of £281 18s 3d; cheques were drawn at this meeting for £247 5s 7d, leaving a bank credit of £34 12s 8d. The matron's report for the month of June showed:—Patients treated, indoor, admitted 41, discharged 40, remaining 28, and 10 infants; births, indoor 26, outdoor 35, a total of 61. Seventy-three patients were treated at the out-patients' department. Dr. S. H. Harris was appointed to the position of hon. resident medical officer to the institution for a term of six months, commencing from August 1st, 1907.

Royal Alexandra Hospital for Sick Children, Sydney.—In reply to the deputation which waited upon the Premier and Colonial Treasurer recently in regard to obtaining further financial assistance for the Royal Alexandra Hospital for Children from the Government, the Premier has decided to comply with the request for a grant towards meeting current expenses, and a sum of £2000 for that purpose will be made available forthwith from his advance vote. He has also approved of a sum of £5000 towards erecting nurses quarters, being included in the next estimates, and is also prepared, provided that the hospital will in return continue the supervision of State children taken to the hospital for survey, which it at present carries on, and will admit and treat any among them who require indoor treatment, to increase the amount on the Estimates, which may be earned annually as £ for £ subsidy, from £2000 to £4000.

MEDICAL NOTES.

Red Cross Society.—Steps are about to be taken to establish a Red Cross Society in Australia as a branch of the British body. Surgeon-General Williams has brought the main principles under the notice of the Minister for Defence, and the initiatory work has been commenced. Surgeon-General Williams has been in correspondence with the executive committee of the society for some time past.

X-Ray Demonstration.—An interesting demonstration of the wonders of the X-rays was given at the Austin Hospital last month by Dr. F. J. Clendinnen, honorary skiagraphist of the hospital. The committee of the hospital has just been enabled to instal a complete X-ray plant for use in the treatment of patients. Dr. Clendinnen explained that the management had had considerable difficulties to contend with in the matter, owing to the fact that the hospital was outside the area of the public installation of electric current. For that reason they had been obliged to generate their own power from the laundry machinery. If it were found practicable to increase that source of supply they would be enabled to extend its uses by installing a

lighting plant, electric fans and an ozoniser. Such an advance would bring the institution more into line with the city hospitals, which were in a position to obtain unlimited electric current.

Trained Nurses' Association.—The annual meeting of the Australasian Trained Nurses' Association was held last month in the Royal Exchange, Sydney. The President, Dr. Fiaschi, occupied the chair. The annual report showed that there had been an increase in the membership of more than 300, and the roll now numbered 2119. Of this number, which did not include honorary members, 1514 were on the central register, 351 on the Queensland register, and 254 on that of South Australia. In New South Wales 11 nurses and four medical men had become life members. Ninety-four general nurses had been registered, and four applications had been refused. In the midwifery auxiliary branch there had been 125 new registrations. Four general hospitals had been recognised as training schools since the last report. The council desired to express its appreciation of the large amount of work that had been so cheerfully performed by the education committee, consisting of Miss Gurney, Mr. H. J. Carter, and Mr. G. P. Barbour. During the year two examinations had been held. In December 63 candidates were successful, and in June 58 passed. The reorganisation of the committee of the midwifery auxiliary branch early in the year had proved successful, and largely increased the efficiency of that body. The journal of the association had maintained its previous standard of excellence. The winter course of lectures was at present in progress, and a number of medical gentlemen and others had consented to act as lecturers. The calls upon the benevolent fund had been very few. The council were glad to be able to announce that Dr. Fiaschi had consented to fill the office of president for another year. Mr. J. O. Fairfax, the hon. treasurer, had rendered invaluable services in placing his business knowledge at the disposal of the council in regard to the management of the finances. The hon. treasurer, Mr. J. O. Fairfax, presented the financial statement for the year, which showed a balance in the Bank of New South Wales of £197 6s 7d, and an investment in the Savings Bank with interest of £829 18s 4d. The following were elected as office-bearers for the ensuing year:—President, Dr. Fiaschi; vice-president, Dr. Sinclair Gillies; hon. treasurer, Mr. J. O. Fairfax; hon. secretaries, Dr. Blackburn and Miss Kendal Davies.

In the last New Zealand Gazette there is a notice forbidding the registering, forwarding, or delivery of postal correspondence to:—Alfred Bennett, Toorak, Melbourne; Tom Dawson, Armadale, Victoria; Mr. John Drew, 547 George-street, Sydney; Mr. C. Evans, Parkville, Victoria; Dr. Gibbons, 137 Elizabeth-street, Sydney; Dr. Hinton-Willis Company, 473 Bourke-street, Melbourne; Dr. Langston Institute, 129 Collins-street, Melbourne; Dr. C. Kempster, M.R.C.S., etc., the Freeman and Wallace Electro-Medical and Surgical Institute, corner of Elizabeth and Bathurst streets, Sydney, and at Melbourne; the McLaughlin Company, Linden Court, Castlereagh and Market streets, Sydney; A. Miner, G.P.O., Sydney; "Prof." Notmann, M.E., E.M.G., N.Z. Electropathic Institute, 236 Gloucester-street West, Christchurch. These people advertise the cure of certain diseases.

Mr. G. Arnold begs to call attention to his advertisements on pages 13 and 14.

Adulteration of Goods.—The Customs Department has been in communication with the Swedish Consul in regard to statements that have been made as to extent of adulteration that takes place in the manufacture of several kinds of goods imported here from Sweden. The Acting Comptroller-General has received a translation of a section of the Swedish Poisons Act of December, 1906. It prohibits the sale of cosmetic or toilet preparations containing lead, salts, or any poisonous colouring, or toys painted or printed with poisonous colour. Arsenic, as metal, may be used in limited quantities in certain goods, but the quantity must not exceed 20 milligrams per sample of different sizes, as follow:—In cloth and material woven, such as blankets, all kinds of knitted goods, lace, linoleum, rubber goods, etc., toys, painted or printed yarn, worsted, string, braid, etc.

Home for Incurables.—The committee and collectors of Hunter's Hill, Woolwich, Gladesville, Tennyson and Henley met recently at the residence of Sir William Owen to receive the amounts collected for the home. The total sum reached £100 1s. Fifty pounds was voted to purchase and endow a bed—the same will be sent annually. The remaining money it was decided to devote towards the reduction of the debt, which is now about £750.

PERSONAL ITEMS.

Dr. C. Corlis, who is moving from Ballina to Bangalow, N.S.W., has been entertained by the residents of the former town and presented with several souvenirs.

Dr. Alexander Stewart, of Glasgow, who had arranged to settle at Gisborne, New Zealand, has entered into partnership with Dr. Stopford.

Dr. A. Gentry Pitts, who has been compelled by ill-health to go to Waimate, N.Z., will be succeeded as an instructor to the Ambulance Association by Dr. Goulburn Gibson, of Christchurch.

Dr. William A. Fairclough, M.B., Ch.M., M.R.C.S., L.R.C.P., has been appointed house surgeon to the Royal Ophthalmic Hospital, Charing Cross, London.

Dr. McDowell, of New Zealand, has obtained the M.D. degree of the University of Edinburgh.

Dr. Wm. Newlands has been appointed surgical tutor at the Otago Medical School, N.Z., vice Dr. F. R. Riley, resigned.

Dr. John Harris has removed to 293 Elizabeth-street, Sydney.

Dr. Ashburton Thompson, President of the Board of Health, New South Wales, left last week for Europe. Dr. Thompson was invited by the executive committee of the 14th International Congress on Hygiene and Demography, which is to meet at Berlin, to associate himself with Professors Koch, Gaffky, and Kitasato in reporting to the congress on the spread and prevention of plague. Dr. Thompson, from his intimate knowledge of the subject, will represent Australia, and the professors will represent the other parts of the world. It is probable that Dr. Thompson will be away for about six months.

Dr. Phoebe Chapple has resigned her position as medical superintendent to the Medical Mission, Sydney, and has returned to South Australia, where her address is Prince Alfred College, Adelaide.

General regret was expressed when it became known that Mrs. Hankins, wife of Dr. Hankins, Kyalite, Warwick, Queensland, had died in Sydney. As

a token of regret flags were flown at half-mast from the business places.

Dr. Amess was presented with a travelling cloak, rug, etc., by the nursing staff of the Melbourne Hospital on August 1st, on the occasion of his severing his connection with that institution. On August 2nd Dr. Amess was further presented with a solid silver liquor stand by the staff of wardsmen and dressers of the hospital.

Dr. J. M. Thomson, a son of Dr. J. Thomson, of Brisbane, has returned after two years spent in London and on the Continent. Dr. Thomson qualified in Sydney, and left for London at the beginning of July, 1906. He has also visited Edinburgh, Berlin and Vienna.

The remains of Mrs. A. H. Bennett, wife of Dr. Bennett, who died at North Adelaide on July 27th, were cremated at the crematorium on July 30th.

Dr. Percy Dean Bray, late of Orange, N.S.W., has disposed of his practice to Dr. Wilson, and left Sydney on 10th inst. for a 12 months' holiday in Europe.

Dr. J. D. King-Scott, who is leaving Queenscliff, Victoria, to carry on the practice of Dr. M. A. Reid, of Brunswick, was tendered an enthusiastic send-off in the Queenscliff Town Hall on August 2nd. The doctor was presented with several handsome pieces of silver plate on the occasion.

Dr. A. H. Macintosh has left Cooma, N.S.W., for Wentworth Falls, N.S.W.

Dr. Leslie Cowlshaw has removed from North Sydney to Cooma, N.S.W.

Dr. John Solomon Harris has removed from Newcastle Hospital to Guyra, N.S.W.

Dr. J. Callaghan, of Windsor, N.S.W., has been elected president of the local School of Arts, and Dr. Walton has been elected vice-president of the Uralla School of Arts, and Dr. Wigam president of the Armidale School of Arts.

At the International Congress on School Hygiene, recently held in London, Sir Philip Sydney Jones represented New South Wales.

Dr. C. D. Lander, who has spent the last four years at Blinman, S.A., returned to Port Adelaide greatly improved in health. He left for a four or five months' trip to England by the Rippingham Grange, which sailed from Port Adelaide on August 18. The doctor will visit the leading London hospitals and Edinburgh. He hopes also to be able to visit the principal Continental hospitals before his return.

MEDICINAL SPRING FOR SALE OR LEASE.—

The Mittagong Land Co., Ltd., is prepared to treat with persons who might be willing to erect a hydropathic establishment at Lady Mary Fitzroy's Medicinal Spring, Mittagong. Arrangements could be made by a suitable person or syndicate for the purchase or lease of the Spa and surrounding lands on exceptionally favourable terms. The water is of a chalybeate nature, and contains 5.98 grains iron bicarbonate per gallon. Mittagong possesses a healthy climate, being situated at an elevation of 2069 feet above sea level, in the midst of charming scenery, with good roads for drives and walks leading to many picturesque resorts. Further particulars as to analysis and terms may be obtained from the Manager, Mittagong Land Co., Ltd., 86 Pitt-street, Sydney.

MEDICAL APPOINTMENTS.

NKW SOUTH WALES.

Binney, Constance, to be Medical Officer to the Wee Wee Hospital.
Cowlshaw, L., to be Medical Officer to the Cooma Hospital, *vice* A. H. Macintosh, resigned.
Harris, S. H., M.B., Ch.M., to be Resident Medical Officer to the Women's Hospital, Crown-street, Sydney.
Williams, Frank Bernard, M.D. (Toronto), to be Medical Officer and Vaccinator at Hillston, *vice* E. B. Fitzpatrick, resigned.

VICTORIA.

The undermentioned gentlemen to be Medical Officers of Health for the districts set opposite their names respectively, viz.:—

Barnard, Charles Edward, M.R.C.S., Shire of Bulla, *vice* Rupert George Naylor, L.R.C.P., resigned.
Begg, William, M.B., Shire of Poowrong and Jeetho—Arawata, Korumbarra, and Jumbunna Ridings, *vice* Eric Norham Scott, L.R.C.P., resigned.
Dunn, Spencer Smithson, M.B., Shire of Wycheproof, portion in and surrounding Kaseira.
Haynes, Abraham, F.R.C.S., to be Acting Public Vaccinator for South-Western District.
Phillips, George Gordon Owen, L.R.C.P., Shire of Wycheproof, to be Acting Officer of Health during the absence of James Andrew Neptune Scott, M.D.
Smith, Johnson Marion, M.B., Shire of Bairnsdale, *vice* William Alexander Teao Lind, M.B., resigned.
Smith, Johnson Marion, M.B., to be Public Vaccinator for the South-Eastern District, *vice* William A. T. Lind, Esq., M.B., resigned.

SOUTH AUSTRALIA.

Bell, Charles Cameron, M.R.C.S., to be Acting Health Officer at Port Darwin, during the temporary absence of Dr. Strangman.
Nesbitt, Mortimer Durnford, M.B., B.S., to be Resident Medical Officer in the Adelaide Hospital.
Waterhouse, C. E. G., at Blinman, to be an Officer of Health, *vice* McCarthy, resigned.

The undermentioned gentlemen to be Public Vaccinators for the districts set opposite their names respectively:—

Evans, John, M.D., of Willunga.
Morris, Bedlington Howel, M.B., B.S., of Adelaide.
Fellew, Leonard James, M.B., B.S., of Balaklava.

The following gentlemen have been appointed medical officers to attend to the Destitute Poor and Aborigines within the undermentioned districts:—

Aldinga, John Evans; Alma Plains, S. L. Dawkins; Angaston, David Kerr; Barossa (East Ward), E. V. Russell Fooks; Barossa (West Ward), E. V. Russell Fooks; Caltowie, W. B. Aitken; Clarendon, George Woods; Craters, J. Francis Souter; Crystal Brook, T. C. Bennett; Dalrymple, L. W. Hayward; Gawler Corporation, James P. Maher; Gawler South, R. St. M. Dawes; Gilbert, R. McM. Glynn; Goolwa Corporation (ex aborigines), Walter Norman; Grace, Sydney L. Dawkins; Kadina Corporation and surrounding district, including Wallaroo Mines, H. A. Powell; Kapunda Corporation and district, E. McM. Glynn; Laura Corporation, District of Booyooloo, and Hundred of Appila, Dean Dawson; Mannam (ex aborigines), William Lamb; Melville District and Corporation of Yorktown, L. W. Hayward; Millicent, F. E. Cook; Mitcham, F. S. Scott; Mount Crawford, E. V. Russell Fooks; Neales, A. Feige; North Rhine, David Kerr; Para Wirra, W. T. Angove; Port Elliot (ex aborigines), Walter Norman; Redhill township and radius of 12 miles, F. C. Acton; Robe, D. J. Canny; Stirling, E. L. Pooler; Stockport, E. McM. Glynn; Talunga, W. T. Angove; Tatiara (ex aborigines), Gilbert Gocer; Teatree Gulley, W. T. Angove; Truro, H. Merton; Upper Wakefield, J. W. Yeatman; Willunga, John Evans; Wilmington, township of, and radius of 15 miles (ex aborigines), W. M. Pickering; Yongala, J. R. Stevenson.

WESTERN AUSTRALIA.

Parent, Dr., formerly of Wiluna, to be Resident Medical Officer at Wyndham.

NEW ZEALAND.

The undermentioned persons to be Public Vaccinators for the districts set opposite their names respectively, namely:—

Hayes, Edwin Claude, M.R.C.S. (Eng.), L.R.C.P. (Lond.), Waimate.
Kenny, George Geils, B.M., M.S. (Glas.), Te Aroha.
Meade, George Walter, L.R.C.P., L.R.C.S. (Edin.), L.F.P. & S. (Glas.), Ohaeawai and Bay of Islands.
Veitch, John Ogilvie, M.B., M.S., M.D., Norsewood and Ormondville.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following gentlemen have been registered as legally qualified Medical Practitioners in their respective States, viz:—

SOUTH AUSTRALIA.

Nesbitt, Mortimer Durnford, M.B., B.S. (Melb.), 1906.

VICTORIA.

Crosley, Robert, Retired Medical Officer, H.M. Forces, India.
Heupt, Albert Reginald, M.D. (Boston), 1907.

Additional Qualifications Registered:—

Bonnin, Francis Josiah, M.D. (Melb.), 1903.
Sammon, Walter Ernest, M.D. (Melb.), 1907.

NEW SOUTH WALES.

Maher, Charles Weston, M.B., Ch.M. (Syd.), 1907.
Maloney, Jeremiah James, M.B. (Melb.), 1905.
Opie, Archelaus James, M.B. (Melb.), 1906.
Smith, William Edward, M.B., M.S. (Edin.), 1894.
Wallace, Thomas Irby, M.B., B.S. (Glas.), 1902.

For Additional Registration:—

Hipsley, Percy Leslie, M.D. (Syd.), 1907.
Watt, John Alexander, M.B., B.S. (Lond.), 1906.

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

CORBIN.—At 248 King William street, Adelaide, S.A., the wife of Dr. Cecil Corbin—a son.
L'ESTRANGE.—July 1, at "Avoca," Butler-street, Albion, Brisbane, the wife of Dr. Guy L'Estrange—a son.
HENRY.—July 20, at San Martino, Little Bay, Sydney, to Dr. and Mrs. A. G. Henry—a son.
KATER.—August 5, at Nyrang, Cheeseman's Creek, N.S.W., the wife of Norman W. Kater, M.B., Ch.M.—twins (son and daughter).

MARRIAGES.

FOX—MARKS.—June 5, at Scots Church, Church Hill, Sydney, Hedley E. Fox, M.B., Ch.M., of Kiama, N.S.W., to Maud Evelyn, youngest daughter of Samuel Marks, Esq., of Roseville.
ALLEN—O'CONNELL.—July 17, Sydney Herbert Allen, F.R.C.S.E., eldest son of Benj. Allen, to Irene Garfield, only daughter of Hank F. O'Connell.
LEAHY—O'CONNOR.—June 15, at St. Mary's Cathedral, Sydney John Patrick Daunt Leahy, M.B., M.Ch., to Margaret Eileen O'Connor.
STERLE—SINCLAIR.—August 10, at Waverley, Sydney, Andrew Buchanan Steele, M.B., Ch.M., eldest son of Richard Steele, Waverley, to Muriel Pauline (Queenie), fourth daughter of Alexander Sinclair, Sydney.
ROBERTS—HOBDA.—June 8, at Hornsby, London, John Thomas Roberts, L.R.C.P. (Edin.), Meadow Lodge, Park-road, Crouch End, to Mabel Caroline, daughter of H. S. Hobday, Bongaree, Manly, Sydney, N.S.W.
SHARP—RITCHIE.—June 12, 1907, at Bega, Walter Alexander Ramsay, B.A., M.B., Ch.M., F.R.C.S., son of William Henry Sharp, of Moaman, Sydney, to Elizabeth Mary Alexander, eldest daughter of the late Henry Ritchie, of Bega, N.S.W.

DEATHS.

BERNSTEIN.—August 3, at his residence, Lismore, N.S.W., Dr. Ludwik Bernstein, age 70.
BENNETT.—July 27, at North Adelaide, Florence, the beloved wife of Alfred Henry Bennett, M.B.
GIBBES.—July 29, at Lithgow, N.S.W., of pneumonia, Heneage Newton, only son of Dr. A. E. and Mrs. Gibbs, aged 3 years.
HANKINS.—July 26, at Sydney, Janet Christina, wife of Dr. G. T. Hankins, of Warwick, Queensland.
MORGAN.—August 16, at her residence, Ruperra, Allen-street, Granville, N.S.W., Harriet, wife of Crosby W. Morgan, M.D., and eldest daughter of the late Alexander Walker Scott, formerly of Ashe Island, Hunter River, N.S.W.
RYGATE.—August 5, 1907, at his late residence, "Clifton," George-street, Marrickville, Sydney, Dr. Robert Rygate—for many years of Wellington, N.S.W.

THANE.—August 5, 1907, at Atherfield, Yass, N.S.W., George Dancer, the beloved son of Dr. and Mrs. P. T. Thane, aged 6 months.

WILLIAMS.—June 1, at Chin-kiang, China, Dr. J. E. Williams, of China Inland Mission.

BOOKS RECEIVED.

Manual of Drills and Exercises for the St. John Ambulance Brigade in Australia. Compiled by Major G. Lane Mullins, A.A.M.C. Sydney: Turner & Henderson. Price, 1s.
What To Do in Cases of Poisoning. By Wm. Murrell, M.D., F.R.C.P. Tenth edition. Number of pages, viii + 280. Royal 32mo. London: H. K. Lewis, 126 Gower-street. Price, 3s 6d.
The Care and Feeding of Children: A Catechism for Mothers and Nurses. By L. Emmett Holt, M.D. Fourth edition, revised and enlarged. Number of pages, 12 + 192. New York and London: D. Appleton & Co. Sydney: Angus and Robertson. Price, 2s 6d; free by post, 2s 10d.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Mr. G. T. Taylor, Hobart; Messrs. Parke, Davis & Co., Sydney; Messrs. Beard, Watson, Ltd., Sydney; Mr. I. Bruck, Sydney; Messrs. Turner & Henderson, Sydney; Mr. W. Ramsay, Sydney; Dr. Fourness Barrington, Sydney; Reuter's Telegram Co., Sydney; Messrs. Watson & McKernan, Goulburn, N.S.W.; South British Insurance Co. of New Zealand, Sydney; Dr. D. Hardie, Brisbane; Dr. W. S. Byrne, Brisbane; H. C. L. Anderson, Esq., Director of the Bureau of Statistics, Sydney; Dr. A. B. Brockway, Brisbane; The Manager, Denver Chemical Manufacturing Co., Sydney; Dr. E. W. Morris, Semaphore, S.A.; Dr. C. Reissmann, Adelaide; Dr. B. B. Ham, Brisbane; Dr. W. Cleaver Woods, Albury, N.S.W.; The United Typewriter and Supply Co., Sydney; Dr. E. S. Stokes, Sydney; Messrs. Denyer Bros., Sydney; Mr. W. Arnott, Newcastle; Messrs. Felton, Grimwade & Co., Melbourne; Dr. W. M. Campbell, Adelaide; The Editor, *Faulding's Medical Journal*, Adelaide; Dr. John Nicholson, Benalla, Victoria; Dr. F. G. Griffiths, Killara, Sydney; Dr. W. Chisholm, Sydney; Messrs. Potter & Birks, Sydney; Dr. Guthrie Rankin, London; Messrs. Hilton & Co., Calcutta; Dr. Pockley, Sydney; Dr. W. G. Armstrong, Sydney; The Secretary, A.M.P. Society, Sydney; Messrs. Burroughs, Wellcome and Co., Sydney; Dr. Gunson, Adelaide; Dr. A. B. Martin, Perth, W.A.; Dr. Jackson, Brisbane; Dr. Henry Lawrie, Melbourne; Hon. J. B. Nash, Sydney; Dr. M. J. Lyden, London; Drs. C. S. Willis and Wallace, Sydney; Dr. Flashman, Sydney.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor."

We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valeric Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. *The Lancet* says:—"In the experiments tried the Jujube proved to be as effective bacterioidally as is creosote." *The Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

AUSTRALASIAN MEDICAL GAZETTE

No. 312.

SYDNEY, SEPTEMBER 20TH, 1907.

VOL. XXVI., No. 9.

SPLENIC ANÆMIA.

By Sydney Jamieson, M.B., Ch.M. (Edin.), M.R.C.S., L.R.C.P. (Lond.), Hon. Physician to the Sydney Hospital, Sydney, Lecturer on Forensic Medicine, University of Sydney.

So long ago as 1866 Gretzel described a case of idiopathic enlargement of the spleen with anæmia in a young child, and in 1871 Wood, of Philadelphia, drew attention to a similar condition. Prior to these observations, Woillez, in 1856, published what, in the light of future research, appears to have been a true case of splenic anæmia. In 1882 Banti, of Florence, described fully the clinical features of the disease, and in particular drew attention to its occasional association with ascites and hepatic cirrhosis. To this latter variety of the disease it is now customary to apply the term "Banti's disease." In 1900 Osler recorded no less than 15 of this hitherto considered very rare disease. Up to 1902 some 30 or 40 cases were on record. In the *British Medical Journal* of October 8th, 1904, Dr. Mitchell Stevens recorded eight cases, which he had come across in the previous two years of private and hospital practice in Cardiff. The fact that two observers had in their own experience seen no less than 15 and 8 cases respectively would seem to indicate that this disease is not in reality by any means so rare as it has hitherto been considered.

During the last eleven months no less than three cases of this disease have occupied beds in my wards at the Sydney Hospital, and I propose now to lay before you briefly the salient features of two of these. Now that the examination of the blood has come to form so important a feature of everyday practice, cases which formerly would have been otherwise classed are now recognised to be cases of splenic anæmia. The following, then, are briefly the outstanding features of two of my cases:—

L.G., *et. 55*, a Chinaman, by occupation a gardener, was admitted under my care in the Sydney Hospital on February 17th of this year. He complained of a swollen state of the abdomen, and stated that the swelling had been gradually progressing for two weeks. For some years past he had suffered from indigestion associated with great flatulence

and at times obstinate vomiting. Even in boyhood he used to be troubled with attacks of swelling of the abdomen, which gradually subsided. Some ten years ago he received a kick in the abdomen from a horse, and ever since he has noticed a lump in the abdomen. He contracted syphilis ten years ago.

Condition on admission.—Markedly anæmic. Abdomen greatly swollen and distended with free fluid. Both heart and liver appeared to be displaced upwards. Above and to the left side of the umbilicus there was an irregular mass to be felt. This mass was slightly mobile, was painless on manipulation, and did not appear to move with the diaphragm. This mass was stated by the patient to have been present ever since the horse kick ten years previously. Both legs were swollen and cedematous and pitted on pressure. Heart.—Apex beat in the fourth interspace a little internal to the nipple line; impulse feeble; sounds clear and ringing in character. Pulse 96, small, tension sub-normal, regular. Respirations, 20 per minute. The temperature upon admission was 98°F., but the same evening it rose to 100°F. Lungs.—Nothing abnormal. The liver dullness commenced at the fourth interspace, but its lower margin was merged in the dullness produced by the ascites.

February 19th.—Abdomen was tapped, and 290 ozs. of slightly turbid yellow fluid was removed. This fluid on examination was found to contain bacillus coli communis in pure culture. After removal of the fluid it was found that the mass felt in the abdomen was a greatly enlarged spleen. It extended downwards and somewhat forwards almost to the umbilicus. The lower margin of the liver was found to correspond with the free margin of the ribs.

An examination of the blood was made and the following result noted:—Red corpuscles, 4,130,000; hæmoglobin, 50 per cent. Rouleaux formation was well marked; no poikilocytosis; slight polychromatophilia; one normoblast was seen in counting 260 leucocytes. Leucocytes, 3200, consisting of polymorphs, 56·7 per cent.; lymphocytes, 32·6 per cent.; eosinophils, 9·9 per cent.; mast cells, 8 per cent.; no myelocytes were found.

February 26th.—The abdomen was again tapped, and 240 ozs. of fluid removed. Some gas was also noticed to escape with the fluid. General condition unaltered.

February 28th.—Abdomen not filling so quickly. Spleen appears to have diminished somewhat. Blood.—Colour rather pale; flow free; red corpuscles, 4,300,000; hæmoglobin, 50 per cent.; colour index, .6. Rouleaux formation, good; no poikilocytosis; both macro- and microcytes seen; no normoblasts; polychromatophilia present, but not marked. Leucocytes, 2400, consisting of polymorphs, 63 per cent.; lymphocytes, 25 per cent.; eosinophils, 11 per cent.; myelocytes, 1 per cent.

March 4th.—Abdomen tapped and 150 ozs. withdrawn. Patient pulled the tube out before it had finished draining. Complaining of pain around the umbilicus, also complaining of frontal headache. A double hydrocele has appeared within the last few days.

March 8th.—Tapped again, and 150 ozs. withdrawn.

March 10th.—Feels very sick; temperature normal; abdomen very much distended; no dyspnoea.

March 14th.—142 ozs. of fluid removed.

March 19th.—132 ozs. of fluid withdrawn; spleen appears to have diminished somewhat; complaining greatly of headache. Blood.—Rather pale, flow poor; red corpuscles, 4,750,000; hæmoglobin, 50 per cent.; colour index, .5. Rouleaux formation, good; macrocytes, microcytes, and poikilocytes present; 3 normoblasts seen in counting 100 leucocytes. Leucocytes, 1000, consisting of polymorphs, 66 per cent.; lymphocytes, 21 per cent.; eosinophils, 8 per cent.; mast cells, 2 per cent.; myelocytes, 3 per cent.

March 27th.—152 ozs. of fluid withdrawn; pulse markedly dicrotic.

April 1st.—Blood: colour good; red corpuscles, 5,410,000; hæmoglobin, 50 per cent.; colour index, .5. Rouleaux formation, good; macrocytes, microcytes, and a few poikilocytes seen; no normoblasts; slight polychromatophilia. Leucocytes: 1400, consisting of polymorphs, 65 per cent.; lymphocytes, 23 per cent.; eosinophils, 11 per cent.; mast cells, 1 per cent.

April 3rd.—200 oz. of fluid withdrawn.

April 10th.—120 oz. of fluid withdrawn.

April 15th.—230 oz. of fluid withdrawn. Complaining of great abdominal pain. Is deeply jaundiced. During the afternoon an attack of hæmatemesis supervened, and he died early next morning.

During the last few days of his life the temperature remained subnormal. During the whole time he was in hospital the temperature varied at times from normal up to 100° F. The treatment consisted in the administration of liq. arsenicalis in gradually increasing doses, and this no doubt was responsible for the improvement in the number of red corpuscles noted. During the whole period of his stay in hospital his general condition was such as to contraindicate so serious an operation as splenectomy.

Unfortunately no amount of persuasion would prevail upon the friends to allow an autopsy to be made, so an incision was made on the posterior aspect of the body, and the spleen and liver were removed. The spleen was found to be considerably enlarged. Its capsule was in places somewhat thickened, and it was adherent to a slight extent to the neighbouring viscera. On section a small recent infarct was found near its lower end. The surface of the section was rather dry and of a dark reddish-brown colour. The malpighian corpuscles were decidedly inconspicuous, but the trabeculæ appeared to be somewhat more prominent than usual. Microscopically it was found that the malpighian corpuscles were shrunken in size and almost completely converted in fibrous tissue. The trabeculæ were much thickened, the organ generally showed signs of passive congestion, and there was a marked diminution of the lymphoid tissue generally. These features were remarkably well shown in sections stained by Van Gieson's method. The liver was extensively cirrhotic, but in addition thereto it was found to be the seat of a secondary deposit of carcinoma. The form of the cirrhosis was similar to that so frequently seen in connection with chronic alcoholism. Many of the liver cells were misshapen, atrophied and granular. Unfortunately, owing to the fact that a complete post-mortem was not made, the origin of the primary growth was not ascertained, but it is extremely likely that it was situated in the stomach.

A.L., æt. 19 years, a carter, was first seen by Dr. Hamilton Marshall at the Regent-street branch of the Sydney Hospital. In February, 1903, and I am indebted to Dr. Marshall for the following notes of his condition while under his observation.

He complained of great weakness, which he said followed upon an attack of hæmatemesis about ten weeks previously. He also gave a history of enistaxis some 12 months prior to

that. A brother and his father had died of phthisis. He was very anæmic, his abdomen considerably enlarged, and his temperature was 99° F. On examination it was found that his spleen was enormously enlarged. His liver appeared to be of normal size. There was some free fluid in the peritoneal sac. His legs were somewhat swollen and pitted on pressure. The heart, lungs and kidneys showed no signs of disease. The blood showed—red corpuscles, 2,400,000; leucocytes, very scanty; hæmoglobin, 20 per cent.; colour index, .4. The patient attended Dr. Marshall's out-patients at Regent-street at intervals, and was occasionally admitted to the hospital under Dr. Marshall, who had charge of my beds during my absence in England. Under treatment by arsenic and iron the red corpuscles and hæmoglobin value improved considerably, but the leucopenia remained unaffected. During the intervals he was able to carry on his occupation as a carter. On August 23rd, 1905, he was admitted to the Sydney Hospital, under Dr. Marshall. The following was briefly his condition on admission:—He states that nearly three years ago he had an attack of vomiting accompanied by hæmatemesis to the extent of about a pint. Since then he had had no vomiting till five days before admission, when it once more returned.

History of the present attack.—On August 18th while out driving his cart he suddenly was seized with an attack of vomiting, ejecting a large quantity of watery fluid, but no blood. He continued his work that day, but feeling very weak he went to bed early, where he remained till he was removed to hospital. States that of late he frequently has had slight transient attacks of epistaxis when blowing his nose. There is no history of syphilis, alcoholism, or of any infectious disease. His appetite is good, tongue furred, no pain or discomfort after food, bowels rather constipated, no piles, no melæna; the superficial abdominal veins are not enlarged. On the left side there is a marked bulging below the ribs; the swollen area shows no pulsation. The swelling referred to was found to be due to a considerable enlargement of the spleen. The organ extended from the fifth rib in the midaxillary line downwards, forwards and inwards for a distance 3½ inches below the costal margin. Its lower border corresponds to a line drawn circularly around the abdomen 1 inch above the level of the umbilicus. The splenic notch can be plainly felt, and the organ moves slightly with respi-

ration. The organ is not tender to the touch, and its consistence appears to be somewhat harder than normal.

The vertical maximum measurement of the organ is 9½ inches, while its greatest breadth measures 8½ inches. The liver extends from the fifth rib to the costal margin. Urine: acid; sp. gr., 1020; contains phosphates, but no albumen, blood, bile, or sugar. Lungs apparently normal. The heart's action rather feeble, the sounds being clear and ringing, and the second aortic sound slightly accentuated. As the patient was obviously very anæmic, an examination of the blood was made on September 1st, and the following condition was found:—The colour was rather pale, the flow slow; red corpuscles, 4,000,000; hæmoglobin, 30 per cent.; colour index, .3. Rouleaux formation marked; the size and shape of the corpuscles normal; a few normoblasts were seen; no polychromatophilia. Leucocytes, 1800, consisting of polymorphs, 72 per cent.; small lymphocytes, 23 per cent.; large lymphocytes, 3 per cent.; eosinophils, 2 per cent.; no myelocytes. On September 12th it was again examined, and the following condition noted:—Red corpuscles, 2,700,000; hæmoglobin, 50 per cent.; colour index, .9. Rouleaux formation, poor; shape and size of the red cells for most part normal, but a few megalocytes seen; no nucleated red cells; polychromatophilia fairly well marked, especially in the megalocytes. Leucocytes, 500; no differential count was made, but it was noted that no myelocytes were present. During his stay in hospital his temperature twice rose to 99° F., but during the whole time otherwise it was normal.

On September 16th, as he desired to go home, he was allowed to do so on the understanding that he should report himself at the ward occasionally.

On December 13th, 1906, Dr. Marshall was called to see him at his home, and found him suffering from headache, pains in the abdomen, and diarrhœa. These symptoms had begun five days previously. His temperature was 102° F. Tongue, red, large, moist and clean. His motions were yellow and liquid, but not offensive. Seeing that his condition was very serious, Dr. Marshall sent him into the Sydney Hospital, where he was admitted under me on December 17th, 1906. He complained of persistent diarrhœa, with loss of flesh and strength. He gave the following story: That on December 11th, 1906, while at his usual work his bowels, apparently without cause, became relaxed, and that since

then he had had constant diarrhœa. He had passed no blood in the motions. He was not vomiting, and there had been no melæna. His urine was acid, sp. gr. 1015, of a greenish-brown colour, but contained no albumen, sugar, blood, or bile. His skin was of a peculiar dark yellowish colour. The left side of his chest was full and rounded. His heart was displaced upwards and to the right. His spleen was found to be much enlarged, and showed some pulsation over it. The apex beat was found to be in the third left interspace inside the nipple line. His liver dulness appeared to be somewhat diminished.

On December 18th an examination of the blood was made, and was found to be as follows:—Red corpuscles, 2,900,000; hæmoglobin, 50 per cent.; colour index, '9. Rouleaux formation, poor; no nucleated red corpuscles. Leucocytes, 9800, consisting of polymorphs, 40 per cent.; lymphocytes, 57 per cent.; myelocytes, 2 per cent.; eosinophils, 1 per cent.

December 21st.—Diarrhœa still persisting in spite of pil. opii., which has been freely administered.

December 23rd.—Condition as before.

December 24th.—Diarrhœa still very troublesome. Have been giving a pill containing ext. opii. gr. $\frac{3}{4}$, cupri. sulphat gr. $\frac{1}{4}$, made up with ext. hæmatoxyli, but this appears to have practically no effect in checking the diarrhœa. A blood examination showed the following:—Blood pale and watery looking, flow slow; red corpuscles, 2,950,000; hæmoglobin, 50 per cent.; colour index, '8. Rouleaux formation, fair; some slight poikilocytosis; in counting 244 leucocytes three nucleated red cells were seen. Leucocytes, 16,000, containing polymorphs, 93 per cent.; lymphocytes, 6 per cent.; eosinophils, '4 per cent.; myelocytes, '8 per cent.

December 25th.—Not so well. Pupils large; pulse 108, very feeble; three ounces of blood passed per anum.

December 26th.—No further blood passed by the bowel. Is unconscious and is passing everything under him. Tongue dry and covered with sordes. The lower edge of the spleen is not so evident, being felt about 1½ inches below the costal margin. The breath has a peculiar sweet odour. Pulse very rapid and feeble. Urine examined and found to contain no sugar, albumen, or acetone. Pupils widely dilated. The patient gradually sank and died next day. The temperature remained normal during the whole of his stay in hospital, it on the day of his death rose to 101° F.

In this case also we were denied the advantages of a complete autopsy, and had to be content with the removal of the spleen and liver by a posterior incision. The spleen was in all respects, both macroscopically and microscopically, similar to that described in the first case, except that no infarction was found. The liver was the seat of an extensive cirrhosis of the common polylobular type.

General Remarks.—The following are the special features of this very interesting disease:—It is essentially a *chronic* disease, the history generally going back to from 5 to 10 years. The enlargement of the spleen is primary and antecedes the occurrence of the anæmia. Anæmia is always present sooner or later, but in the earlier stages it may be by no means a marked feature. The enlargement of the spleen is, as a rule, comparatively speaking, moderate in amount, and rarely reaches below the level of the umbilicus. It gives rise to no subjective symptoms of its presence. As a rule it is painless and firmer than normal. Occasionally there are attacks of perisplenitis, and this of course will be associated with attacks of pain. The changes in the blood are not by any means pathognomonic. Briefly, the most common features are:—(1) A relatively high red count—the average in Osler's cases being from 3 to 3½ millions; (2) a relatively low hæmoglobin value, with lowered colour index; (3) as a rule a low leucocytic count. In some cases an extreme leucopenia is found. Occasionally there is a leucocytosis, but in such cases, as a rule, complications such as inflammations of serous membranes or diarrhœa account for such unusual counts. 4. Occasionally nucleated red cells are seen. There is often a history of either epistaxis or hæmatemesis—more frequently the latter, and sometimes death is due to this cause. In a few isolated cases an enlargement of the liver has been noted; more commonly, however, the opposite condition of atrophic cirrhosis is seen, and it is in these cases especially that hæmatemesis occurs. In these cases also ascites is frequently found to be present. As far as the digestive system is concerned, there is by no means infrequently a good deal of disturbance, sometimes in the form of obstinate vomiting, with constipation. Occasionally very severe diarrhœa occurs as a complication. The heart, as a rule, shows considerable weakness, but not more than would be accounted for by the anæmic condition present. In the earliest stages the diagnosis of the disease is very difficult, but in the later stages it can gene-

rally be satisfactorily differentiated. From pernicious anæmia it may be distinguished by the enlargement of the spleen and by the condition of the blood. From leukæmia it is readily separated by the blood examination; the absence of leucocytosis alone is sufficient to distinguish it. In Hodgkins' disease the anæmia is usually not so marked, there is a greater enlargement of the liver, and the lymphatic glands are affected. From syphilitic disease of the spleen it may readily be distinguished by the absence of any of the stigmata of syphilis. From the enlarged spleen of malaria the diagnosis is readily formed by the absence from the blood of the characteristic protozoa.

As far as sex is concerned, it would appear that the disease is somewhat more common in males than in females. Thus Sir Samuel West, in his article on the subject in Allbutt's System, records 24 cases, in which 19 were males and 5 only females; whereas Armstrong, in an article on the subject in the *B.M.J.* in last November, records the sex in 28 cases, 16 being females and 12 males. As far as age is concerned, the disease is essentially one which is equally distributed through all the age periods of adult life. Cases are occasionally seen in children and in old people. A case has been recorded in a child of 9 years, and one in a man of 72 years.

Ætiology and Morbid Anatomy.—Notwithstanding the numerous attempts that have been made no micro-organism has hitherto been proved to have any causal relationship to this disease. Bruhl, who in 1891 made an exhaustive inquiry into the disease, regarded the splenic changes as primary and the cause of the anæmia. He expressed the belief that the atrophy and loss of function of the organ led to an alteration in the chemical constitution of the blood. This, however, cannot be so, as splenectomy does not give rise to splenic anæmia. Splenectomy both in man and animals gives rise at first to anæmia, but subsequent lymphatic hypertrophy elsewhere, and an extension of the red marrow into the shafts of the long bones occur, and the anæmia then disappears. In splenic anæmia no such compensation is seen, and the disease does not tend to gradual spontaneous cure. For these reasons, then, it is highly probable that the disease is not due to splenic inadequacy. The question arises—Is it due to some morbid process originating in the spleen? The improvement that so frequently follows the operation of splenectomy seems at a glance to favour this view. This improvement, how-

ever, is explicable on other grounds. Hunter showed that after splenectomy in rabbits the injection of toluylendiamin no longer gives rise to hæmolytic, or at any rate only very slightly. Botazzi, from experimental data, concludes that the spleen normally loosens the cohesion between the hæmoglobin and the red cells. He points out that after splenectomy the red cells become more stable than normal. If, then, splenic anæmia is a chronic intoxication, splenectomy would thus diminish the hæmolytic due to the action of a poison by making the red cells less vulnerable. On the whole, then, there is no good ground for the belief that the disease is due either to loss of function of the spleen or to morbid changes in the organ. It may be argued that the disease is due to an exaggerated activity of the hæmolytic function of the spleen. This is highly improbable, as the increased size of the spleen is due not to a true hyperplasia but to a fibrotic atrophy of the splenic tissue. Moreover, the spleen does not contain much pigment or show the reaction for free iron which one would expect were it the seat of an increased hæmolytic. So far we are in complete ignorance of the true cause of this interesting disease.

As to the morbid anatomy of the disease: There is a general pallor of the skin and more or less of all the organs. The most obvious condition to be noted is the enlargement of the spleen, and the conditions noted in the two cases I have described are quite typical of the condition usually found. Briefly put the changes are:—(1) Fibrosis of the organ generally; (2) atrophy of the pulp; (3) cirrhosis and diminution in the size of the malpighian bodies. The liver is frequently cirrhotic, but not in all cases. The two cases I have described showed this change in a marked degree, and should therefore be classed as cases of the variety known as Banti's disease.

Banti described the condition as follows:—"The spleen enlarges without known cause, preserving its shape, but becoming harder than normal. Still later there ensues a fairly well defined type of progressive anæmia with, at times, occasional remissions. There is also some pigmentation of the skin and some degree of icterus. This condition constitutes the first stage, and may last from three to five or ten years. In the second stage, which is shorter, the urine becomes scanty, high coloured, loaded with urates, and contains urobilin. This stage lasts a rule a few months and is followed by

third stage, in which ascites appears with the usual signs of hepatic cirrhosis."

In some cases there has been noted some induration of the *pancreas*, but this is not constant and is probably unimportant. The *lymphatic glands* remain unaffected. As a rule the *bone marrow* shows no change, but in a few cases there has been described an extension of the red marrow into the shafts of the long bones. The heart is often dilated and flabby, and in some cases is the seat of a fatty degeneration. These, then, constitute the most important changes to be noted in this disease.

Treatment.—Arsenic has been used in some cases with a certain amount of success of a transient kind, but all treatment by drugs so far may be said to be more or less inefficacious. The only line of treatment which seems to hold out any hope of success is the operation of splenectomy. Unfortunately the two cases I have just recorded were too far advanced in the disease to admit of such heroic treatment when they came under my observation.

In an article in the *B.M.J.* of November last, Dr. G. E. Armstrong, of the Montreal General Hospital, places on record 32 collected cases of splenectomy for this disease, with no less than 23 recoveries and 9 deaths—a mortality of 28 per cent. In the great majority of the recoveries the patients were recorded as being practically restored to health, the blood having been restored to a normal condition, and the condition of the liver being arrested. One case was reported well one month after operation, another case eight months after, another case nine months after, another case 20 months after, another case 21 months after, another case 33 months after, another case 2½ years after, another case 6½ years after, another case seven years after, another case eight years after. Such a record certainly holds out a hope of cure for a disease which until quite recently appeared to be quite hopeless.

(Read before the New South Wales Branch of the British Medical Association.)

Devon Hospital, Tas.—The special effort to assist the building fund of the Devon Hospital has been fairly well responded to so far, nearly £150 having been subscribed to the special fund. This means that when another £100 has been provided the governors will be able to call on the anonymous donor of £250, on the £1 for £1 principle, to make good his promise, the building fund being thus increased to £500, independent of any Government assistance, a sum which should enable the board of governors to do the work they have in mind for some time.

PNEUMONIA AND ITS TREATMENT.

By John Nicholson, M.D. (Edin.), M.R.C.S. (Eng.),
Benalla, Victoria.

IT was with considerable diffidence that I complied with the request of our energetic secretary that I would read a paper at this meeting of our Society; but when I considered that you had appointed Benalla the place of meeting, I thought it incumbent upon me, as one of its oldest citizens and certainly its medical doyen, to further the objects of this society to the best of my ability, if I could do so by giving you a short account of my experience in the treatment of disease. After much deliberation, I concluded to make "Pneumonia and its Treatment" the subject of my contribution, because, when we bear in mind that like the poor it is always with us, and that it is the cause of about 1300 deaths annually in the State of Victoria alone, it will be freely admitted to be a subject of much importance, and any suggested treatment, fortified by experience, which is likely to lessen that mortality would be eagerly welcomed by our profession.

Pneumonia is a very remarkable disease, and differs from all other inflammations of important organs, in the suddenness of its onset, the rapidity of its progress and the abruptness of its termination. It is a disease unfortunately so common that we become well acquainted with it at a very early period of our professional career, and even the tyro, when called to a patient, who has been rather suddenly seized with shivering, amounting to rigor, nervous depression, and possibly vomiting, followed in succession by headache, general muscular pains, accelerated breathing and pulse, sometimes by pain in the chest and cough with scanty viscid expectoration, at first streaked with blood, later more deeply dyed, and if to these symptoms are added flushed cheeks and febrile temperature, recognises at once, without the aid of physical methods, that he has to deal with a case of acute lobar pneumonia. Now, although it can be thus positively diagnosed it is still necessary to resort to physical signs to enable us to determine its location and extent. These signs may not be very conspicuous for the first 48 hours of the disease, in consequence of the focal area being basal or deep seated, but generally percussion dulness, tubular breathing and bronchophony are not long delayed, and are usually preceded by fine crepitation. But I will not weary you with

a recapitulation of physical signs, with which you are all familiar, and I merely mention them now to make my paper more self-contained, and because it will be necessary to refer to them more fully when I come to deal with the treatment of this disease, as I may as well at the onset state my belief that the symptoms are the only sure guide to treatment. It is my intention to restrict my remarks to a consideration of acute lobar pneumonia, as any attempt to include allied pulmonary affections would take up more time than we have at our disposal, even if I felt competent to deal with so wide a subject.

I commenced my professional career in 1857, at a time when the profession was much divided on the subject of the treatment of inflammations in general, and of the treatment of acute lobar pneumonia in particular, and I believe that Professor Hughes Bennett, of Edinburgh, was one of the first, some 12 years previous to this, to direct attention to the great mortality which attended the treatment from blood letting and antimonials. He used the statistical method in determining the results of treatment, and showed that the mortality was from 20 to 30 per cent. in all the hospitals of Europe. At this time the efficacy of blood-letting was supposed to be unquestioned, and it was by the application of the numerical method to pneumonia that Hughes Bennett banished general bleeding from medical practice. He urged that the advances in pathological knowledge and diagnostic methods demanded an equal advance in treatment, which could only eventuate when the clinical history of disease was observed independently of the added effect of venesection and powerful drugs. In short, he pointed out the necessity of studying the natural history of a disease. He was much indebted to the results of homœopathic treatment for testimony to his rational methods, as, of course, he looked upon the administration of infinitesimal medicines as only another means of leaving the disease to the *vis medicatrix nature*. I had the advantage of being one of his clinical clerks, which I afterwards found was not an unmixed blessing, as I was not long in discovering that while it was very gratifying to be possessed of *mens scibi conscia recti*, to be in advance of the times in those days was decidedly disadvantageous. In my capacity as clinical clerk I recorded about 16 cases which were under treatment in the hospital. To sum up shortly, the treatment was mainly expectant; neither blisters nor poultices were ever

applied. Pain was relieved by small doses of Dover's powder, and on about the sixth day a diuretic mixture, consisting mainly of sph. of ætheris nit. and tr. of squills, was administered three or four times daily.

In nearly every case four ounces of port wine daily was allowed, cold water permitted *ad lib.*, and beef-tea with toasted bread, frequently given. While I was there only one death occurred, and that was due to what at that time was called a concurrent attack of cerebral meningitis.

In 1865 Dr. Bennett was able to publish the statistics of about 160 cases, of which only three died, death resulting from complications. Fortified by this experience, it can easily be understood that I had a firm reliance on this method of treatment, which was further justified by continued success, for I don't remember seeing a death from pneumonia for a period of fully 12 years, although during that time I had many cases under my care, both in England and in this colony. I began to think that the disease ought never to be fatal, until about the year 1873, when I had my first fatal case; several cases previous to this had been very severe and evidently critical. I then had several deaths, and I began to lose faith in stimulating treatment, and had to resort to aconite, veratrum viride, and quinine, as suggested by Ringer. Deaths, however, continued to be too frequent, and during the last year a very fatal form of pneumonia was prevalent. Its victims were mostly young and vigorous men, the final cause of death being apnoea. It appeared to me that the symptoms might be relieved by a resort to blood-letting, and I suggested this to the late Dr. Henry in 1878 when called in consultation to a case during its first or congestive stage. We accordingly bled him to the extent of 16 ounces, and were gratified to find that in a few hours his condition was much improved, and his subsequent progress towards recovery was uneventful. Since that time I have seen cases—certainly not many—which would have benefited by similar treatment, but lacked the courage to practice it. Subsequent to this the disease has in general been milder, and I am inclined to agree with the older physicians, who asserted that the types of diseases have a cyclical change, although they were no doubt wrong in thinking that the change was in the human system and that it was less resistant to inflammatory action. We do, of course, meet with very severe cases at the present time, but personally I do not ap

proach them with the misgiving which possessed me 30 years ago. I think it highly probable that his unfavourable surroundings, comprising as they did small, stuffy bedrooms, where proper ventilation was impossible, combined with the mistaken kindness of the patient's friends, who crowded into the room as soon as the doctor's back was turned, robbed him of the vitalising air—seriously jeopardised his recovery. Then, again, the effort to keep the room warm generally resulted in alterations of temperature, which were calculated to do more harm than a much lower but equable temperature. There appears to have always been a foolish dread of "catching more cold," and to remove a patient into the open air was looked upon as the surest way to kill him. Even at the present time we meet with patients or their friends who cannot be reasoned with, and who continue a practice fraught with so much danger.

At this time I lost all confidence in the use of wine or spirits, as their administration even in liberal doses failed to influence the disease. Carbonate of ammonia with senega and cinchona were equally useless. I was induced to try the effect of a combination of salicylate of soda and morphia in small doses, in consequence of the success which attended their use in the treatment of acute rheumatism and acute catarrh. I was much impressed with the value of these drugs in relieving headache, sleeplessness and pleural pain, but there was an attendant disadvantage in their liability to cause vomiting and excessive diaphoresis. I subsequently lessened the dose of the salicylate, and at the same time gave bicarbonate of soda with milk and aerated water; this prevented the tendency to vomiting and kept the cutaneous action within bounds. I am firmly of opinion that perspiration, if at all profuse, is calculated to do much harm, and it is one of those distressing symptoms which is never absent when death is impending from this disease. The patient's face will be covered with beads of perspiration, and if the bed covering has been injudiciously heavy and the body garment too tightly fitting, everything surrounding the body will be saturated with moisture, producing a sodden appearance to the skin. This condition should be carefully guarded against, as it can only precipitate the collapse which is threatening. I think it very doubtful whether the discovery of the morbid cause of this disease—the diplococcus pneumoniae—has added anything

to our means of combating it. There is no doubt that in the light of modern research it must be looked upon as a general systemic disease, with localised phenomena, and that its greater or less severity must be in proportion to the virulence of the invading pneumococcus.

That this does vary greatly has been conclusively proved by several observers, and it is some satisfaction to us, when we look back to past failures, that we can console ourselves with the thought that even aided by our present knowledge they would have proved equally intractable.

Although the belief in our ability to abort the disease may have to be considerably modified, it would be ill-advised to cease our efforts to do so, and we should be slow to thrust aside the experience of our predecessors, who had a firm belief in that possibility. Even Bennett admitted the probability in the pre-exudative stage.

As bearing on this part of my subject, I have in mind a curious experience which occurred to myself, the relation of which may be interesting. I was called about 10.30 a.m. one day to see a young man of about 20 years of age, who had the previous day been suddenly seized with rigor and headache; he felt prostrated and shortly afterwards took to his bed; during the night he was seized with violent pain over the right mammary region extending to the back; he also had an irritating, dry cough. He had passed a restless night. My examination yielded little additional information to the subjective symptoms just detailed; his tongue was furred, he was thirsty, appetite lost, and a temperature of 103°; physical signs somewhat obscure, but voice-sound modified over lower lobe of right lung; respiration 24, pulse 116. The pain was very severe. In absence of hypodermic syringe, I ordered a mixture containing 8 grains of soda salicylate and $\frac{1}{4}$ grain morph. mur. per dose every four hours. I next saw him at 7 p.m. on the same day, and I was astonished to find him deeply somnolent and difficult to rouse. His pupils were contracted, and he was evidently deeply under the influence of a narcotic. I then ascertained that as my mixture had failed to relieve him his mother had given him $\frac{1}{4}$ grain tablets of morph. sulph. at short intervals, sufficient, when added to my doses, to show that he had taken $1\frac{1}{4}$ grains. I immediately injected $\frac{1}{4}$ grain atroph. sulph., and made every effort to rouse him. I had to continue these efforts for 12 hours before the heavy,

drowsy condition passed off and the breathing became less stertorous. I left him sleeping calmly, and when I returned about mid-day he had just wakened up and was enjoying a basin of beef-tea and dry toast. All symptoms had disappeared and did not again return.

Was this a case of lobar pneumonia arrested at the onset? It certainly bore testimony to the expressed belief of Sir Samuel Wilks, who, in an essay on the subject of pneumonia, says: "Whatever doubts I may entertain as to the value of antimony in inflammatory affections generally, I have none with regard to opium." I have the firmest belief in its powers of arresting or controlling inflammatory action.

I will not further dwell on this part of my subject, with the main facts of which you are doubtless all familiar, but will proceed to give you an outline of that treatment which has given me the best results; premising firstly that my remarks are intended to apply to the treatment of typical cases, also including such phenomena as result from the attack.

As the disease varies so much in its severity, it is necessary to have some definition of what we may safely consider a favourable case; therefore to minimise the effect of personal equation, I think we cannot do better—for the sake of comparison—than accept the teachings of Aitken, who considered the correlation of the temperature, pulse, and respiration to be our best guides, and he looked upon any case in which the mean temperature remained below 104° , the pulse not more than 120, and the respiration not exceeding 40, as a favourable case, and not necessitating special treatment. It is evident, however, that it behoves us to adopt such measures as are likely in our judgment, and to ensure a favourable progress to the crisis which leads to recovery. In furtherance of this object we have many things to consider. We must treat the symptoms as they arise, and at the onset it is necessary to relieve the headache, pleural pain, if present, and the sleeplessness which is so distressing. If the patient is allowed to toss about in his efforts to find relief from these symptoms we may fear an extension of the disease, or at least that efforts at aborting it will be a failure. I have found nothing to equal a combination of soda salicylate and nepenthe in fulfilling these primary indications, and I generally give an ounce and a half draught, containing 15 grains of salicylate of soda and $1\frac{1}{2}$ drachms of nepenthe; two-thirds to be taken for first dose early in the evening and the remainder

four hours afterwards if not resting well. There is nearly certain to be much improvement the following morning, and then without distress to the patient a thorough physical examination can be made to determine the location and extent of the affection. Dry clothing should have been put on early in the morning and strict precautions taken that everything surrounding him is dry, and that the bed covering is as light as possible. Be sure that the patient is wearing a wide cotton night garment. The influence of the room temperature is so great that it is necessary to take this into consideration in the subsequent treatment, as the pyrexia can be much better controlled by a cold air bath than by any depressing drug. If the bodily temperature rises, lessening the covering will materially tend to prevent it becoming excessive; failing this we must have recourse to the salicylate, repeating it as often as is necessary, but never continuing it with a falling temperature; this is imperative.

If we could manage to maintain a temperature of about 50° or 55° in the sick-room I feel confident that the case would progress satisfactorily. This may be somewhat trying to the attendant, but it would be ill-advised to consider the comfort of the nurse before the exigencies of the patient. It will be noticed that I lay much stress on the influence of surrounding temperature. My experience has taught me that there is less fatality among cases that occur in the winter months than in those that occur in October or early in November, and I attribute this in a great measure to the fluctuations of temperature and the difficulty of providing against it. Having at the outset made sure that the bowels have been well cleared by an enema, I pay no further attention to them, not thinking it advisable to give a purgative during the course of the treatment, unless there is tendency to tympanitis, which is uncommon in adults. I give $\frac{1}{4}$ -grain of morphia every four waking hours until the fifth or sixth day, unless contraindicated by extreme dyspnoea, as I cannot doubt its beneficial effect. I use the salicylate as previously indicated, and under this treatment the crisis is rarely delayed beyond the eighth day.

As far as diet is concerned, I rely much on milk, either alone or with bread, sago, or other farinaceous foods; but I make no effort to force the patient if there is much repugnance to food, because, as there is every probability of the illness being of short dura-

tion, no harm can come from fasting. Fruit is allowable in any quantity. As I have previously stated, the condition of the pulse is the most important guide to prognosis and, incidentally, to treatment; a persistent, slow pulse being more unfavourable than one over 120, as it is so frequently the forerunner of cerebral mischief, especially if there is continued headache with some degree of delirium. I have seen five cases complicated by acute meningitis, which were all preceded by these symptoms. Digitalis given at a wrong stage may mask these symptoms. I must confess that when once this formidable complication sets in I lose all hope and consider the case necessarily fatal, and, beyond administering chloral hydrate either hypodermically or by the mouth in combination with bromide, I know of no treatment likely to be successful.

I have spoken hitherto of the disease as it occurs in winter, but it may occur in hot weather, and then I have no hesitation in saying that the cold bath is the best of all treatment, when the air temperature ranges between 85° and 100° or upwards. I have frequently resorted to it, and always with marked advantage. I well remember a case which occurred at a time when the daily temperature in the shade was between 98° and 102°. It was a young lad about 17. He had been ill several days, and I was expecting a crisis; but the breathing was much oppressed and the pulse becoming very weak. On one of my visits I found him cyanosed, with loud rattling breathing, bathed in perspiration, and a small thready pulse, difficult to count. There was no bath in the house, but I had him brought out on to the verandah, put into a large wash-tub, and I liberally douched him with tap water poured from a watering can. It was not long before he was revived. He was then clothed in dry garments and laid on a mattress on the verandah. I returned in about two hours and found him breathing calmly and every symptom relieved. I am under the impression that I happened to hit on the crisis, and by rousing the exhausted respiratory centres turned the scale in the direction of recovery. I may add that no opiate had been given within the previous 48 hours. If this had been the case it would have put a different complexion on the case. I am thoroughly in accord with the experience that opium is a dangerous drug when there is any respiratory distress. There is in fact no indication for its administration after about the fourth day. Even codeine, which I

have latterly substituted for morphia, requires careful watching. I find that ether given in a little sweetened milk is by far the best reliever of distressing coughing, which frequently comes on towards the crisis, and is equally urgent when the T.P.R. have become normal. It is possibly caused by the see-saw râles, or redux crepitation, as you may remember that this accompanies both inspiration and expiration. If I am asked what treatment is most successful when the case is evidently entering a dangerous phase, as ushered in by those signs which have always been recognised as of serious significance, I can only say that I rely upon strychnine, caffeine, trinitrine and digitalis—some hypodermically and also in combination per *orem*. I also give freely the *mistura vini gallici* of the *Pharmacopœia*. I think above all it is necessary to prevent as far as possible the distressing perspirations which too often lead to collapse. The list of drugs which I have given no doubt savours of polypharmacy, and while all are useful it is not advisable that they should all be brought to bear on one patient, but having made up our mind which to administer it is better to adhere to it than indulge in weakly vacillation.

There are several recently introduced methods of treatment, but as I have had no experience of their effect I am not in a position to criticise them. I may, however, suggest that any benefit likely to result from subcutaneous infusion of normal saline in pneumonia had much better be rendered unnecessary by directing our efforts to the conservation of the fluids already in the tissues. I will say, in conclusion, that I am utterly opposed to the so-called wet packing, as a half-hearted resort to what, more efficiently carried out, is the most important of all remedial agencies.

As I have only referred to my own methods of treatment, I must be pardoned if I appear to be too egotistical, and I can only urge as an excuse for being somewhat dogmatic that I was for several years depending altogether on my own resources in these cases, not having the facilities which now offer for dividing a responsibility we would all willingly share if opportunity offered.

I dare not further occupy your time, although I know that I have treated the subject in an inadequate and perfunctory manner, but I would like to give this final warning to the inexperienced: Keep a lookout for pleural effusion and suspect it if crisis is delayed.

CASE OF RUPTURED PANCREATIC CYST.

By T. Fiaschi, M.D. (Pisa and Florence), Hon.
Surgeon Sydney Hospital, Sydney.

A WOMAN, age 42, was admitted to the Sydney Hospital on Saturday, May 18th, at 12 a.m., in an almost moribund state. The following history was collected by my house-surgeon, Dr. Shellshear:—The patient had always been a healthy woman and was a mother of seven children; had sustained no abdominal injury; for last few weeks had complained of a "high stomach" and of a feeling of fulness in the epigastrium. Six days ago, on the Monday, was suddenly seized with sudden and severe pain in the epigastrium, which remained unabated till Wednesday, when it altered its position and was referred to the back, just beneath the shoulder blades, not worse under the one than the other. Her temperature at this time was 103° and pulse 140. On Wednesday she began to show signs of jaundice, which had gradually increased. All through the illness there had been much vomiting, which for the last 36 hours had been of a greenish-red colour with occasional red tinges. Bowels had been freely opened. Since Wednesday her abdomen had been gradually distending. Present condition.—Deeply jaundiced; very distressed in her appearance; breathing 36 times to the minute; pulse 112, respiration 28. The abdomen is greatly distended, highly resonant all over, and tender. On palpation the sensation is given of deep-seated fluctuation, as if some encysted collection of fluid were present beneath a layer of distended intestines. The blood gives a leucocyte count of 17,600. Dr. Armstrong, acting gynaecologist to the Sydney Hospital, examined her and found nothing abnormal in her pelvic organs. Wediagnosed general peritonitis, due to rupture of some internal organ—either a distended gall-bladder or a pancreatic cyst—and though in a most critical condition decided to explore, evacuate and drain. Under ether I first incised over gall-bladder, but found this distended, free from adhesions, and otherwise healthy. On opening the peritoneum we found that the peritoneal cavity contained a quantity of free, brownish-red fluid, and on passing the finger over the stomach a large cyst was felt below the stomach. Not being able to get at it well from this incision, I made another below the umbilicus in the middle line. This allowed me to get to the mesocolon, which was pushed down and seemed to form the

lower boundary of this cyst; and having selected a portion of it free from blood-vessels, I plunged a large ovarian trocar, through which one gallon of dark-brown fluid like altered blood, came away. I intended then to open the cyst from the loin and drain it from the back, but as the patient's condition became very bad I hurriedly washed out the abdominal cavity with saline solution, and left one large drainage tube through the mesocolon in the cavity of the cyst and a smaller one in Douglas's pouch. Patient, on recovering consciousness from the anæsthetic, continued to vomit the same dark-brownish fluid, and died 18 hours after operation.

Dr. Aspinall, resident pathologist, made a post-mortem examination through the operation wound, and here are his notes:—Peritonitis; large amount of free blood-stained fluid. Omentum much thickened. A huge cyst was found growing from the tail of the pancreas, extending from the pancreas behind transverse colon and great omentum into pelvis. On separating it from the pancreas it was found to extend mainly from the tail of the pancreas. Pancreatic and bile ducts quite patent. Omental glands enlarged. The fluid from cyst reduced a solution of starch stained with tincture of iodine. Microscopic section showed the cyst wall to be covered by pancreas.

Microscopically this fluid was examined by Dr. Jamieson, honorary pathologist to the Sydney Hospital, who found in it the following:—(1) Recent blood, (2) altered blood, (3) amorphous granules, (4) large endothelioid cells, containing numerous large droplets. Culture, staphylococci (stained by Gram's).

Remarks.—What was the nature of this cyst? If we accept Moynihan's classification of Pancreatic Cysts¹ in (1) retention cysts, (2) proliferation cysts, (3) hydatid cysts, (4) congenital cystic disease, (5) hæmorrhagic cysts, (6) pseudo cysts, I think that we must class our case, up to a certain point, amongst the hæmorrhagic cysts. These may be traumatic or spontaneous in origin. In our case we must rule out trauma, so that the hæmorrhage must have been spontaneous and the result of either a chronic or acute pancreatitis. Most likely there had been for some time chronic inflammation of the tail of the pancreas leading to a gradual blockage of the duct and the formation of a retention cyst, which gradually increased up to the momentous Monday, when sudden hæmorrhage took place in the cyst, causing it to

enlarge rapidly and rupture into the lesser peritoneum. Coming to two points of practical import: Could we have definitely diagnosed this case as a pancreatic cyst before opening the abdomen? I think that had there not been marked jaundice we might have been sure that we were dealing with a pancreatitis or with a pancreatic cyst. Jaundice is so much more common in gall-stone obstruction of the common duct that when associated with sudden pain it makes that diagnosis the most probable. Jaundice has been met in pancreatitis and in pancreatic cysts, but only in the proportion of 10 cases in 72, as given by Egdahl², a recent writer on this subject.

One of the symptoms that struck me, and which I thought very diagnostic of pancreatic cyst, was the sensation of deep fluctuation rendered distant all round by a layer of interposed distended intestine, elastic to the touch and resonant on percussion. The presence of blood-stained serum in the peritoneal cavity in acute cases is due to three conditions—pancreatic disease, thrombosis of the mesenteric vessels, and torsion of the omentum. The peculiar brown colour of this fluid, I think, was very characteristic of pancreatic trouble. The other practical point is: Could we have been more fortunate in our result if our intervention had taken place within the first 24 hours from the sudden outbreak of acute symptoms? The treatment by evacuation and drainage, according to statistics collected by Moynihan¹, gives 9 deaths in 84 cases, and of these only five really due to the operation. These statistics apply to non-ruptured cysts. When rupture takes place it is the same as in the perforation of any viscus opening into the peritoneal cavity, whether a gastric ulcer or a typhoid ulcer, or a lacerated intestine,—the chances of saving the patient's life rapidly diminish with every hour after the first 6 hours.

It is well for all of us to remember that cases of pancreatic cysts and pancreatitis (though not as common as appendicitis or cholecystitis) are yet occasionally met, and that they stand no delay.

REFERENCES.—(1) Moynihan: Abdominal Operations, p. 731. (2) Symptomatology and Diagnosis of Acute Pancreatitis, by Aulin Egdahl—Surgery, Gynecology and Obstetrics, May, 1907, p. 602 (13/-). Moynihan: Abdominal Operations, p. 748.

Messrs. Parke, Davis & Co. direct attention to their advertisement on page 12.—[Advt.]

Mr. G. Arnold begs to call attention to his advertisements on pages 13, 14, 35 and 36.—[Advt.]

SIXTY CASES OF APPENDICITIS.

By C. MacLaurin, Hon. Surgeon, R.P.A. Hospital, and the Royal Hospital for Women, Sydney.

DURING the last twelve months I have been following a routine technique in all cases of appendicitis, and in that time I have operated upon 60 cases, with one death. As all varieties were operated upon, and none was refused, no matter how serious the condition seemed, I thought that an analysis of the work might prove of some interest. The cases are classified into four divisions—catarrhal, in which no adhesions were met with; adherent, in which though there were marked adhesions, there was no pus; suppurative, in which the pus was localised; and gangrenous, in which there was free pus in the general peritoneal cavity, and the appendix was either perforated or destroyed. I have not used the term general peritonitis, because it is impossible to say whether the whole peritoneum is invaded or not without a post-mortem examination, and in any case it is doubtful whether there is any clinical or pathological justification for the old division into partial and general peritonitis.

There were 35 females and 25 males, which seems to show that the disease is becoming more common among women than was formerly the case, though the numbers are hardly large enough for an induction. My experience concurs with that of Treves, that it is generally difficult, and sometimes impossible, to diagnose between right-sided tubal trouble and appendicitis.

Catarrhal, 8 cases; adherent, 33 cases; suppurative, 7 cases; gangrenous 12 cases. The only death occurred in one of the suppurative cases, a girl, who unexpectedly developed peritonitis on the sixth day, and died rapidly.

Aseptic Technique.—The skin and hands were in all cases prepared by the ordinary spirituous biniodide method. Gloves were invariably worn by the chief assistants and myself, with face-masks. These precautions are somewhat trying in the hot weather, but the wounds heal very kindly when they are taken, and one has the inestimable advantage of knowing that the hands, hair, and breath cannot infect the wound. No suppuration occurred in any but cases already septic.

Incision.—In 52 cases the Macburney incision was used, somewhat modified in the later ones by making the skin wound more horizontal than Macburney described, so as

to follow the natural line of cleavage of the skin. The result is a less conspicuous scar. As a rule the incision was from two to two and a-half inches long; in a few cases it was necessary to enlarge it. I have seen one hernia after these operations. Three cases in women were done by the mesial incision, and five by the incision at the outer edge of the rectus. This latter we have now abandoned.

Treatment of the Appendix.—It was removed in all the cases; as a general rule an attempt was made to take it away by touch alone, without opening up the abdomen sufficiently to look for it. With practice this can be done rapidly and certainly in most cases. Before attempting to do so it is essential to pack off the general cavity thoroughly; we now use in all cases six small pads three inches square. We found it necessary to look for the appendix in six cases; in these an electric headlight is an advantage. The opening in the wall is only large enough to admit two fingers; it is seldom necessary to make a larger one, if one accustoms one's self to work entirely by touch.

In 20 cases the cuff method was used, but we abandoned this owing to the impossibility of finding any healthy peritoneum in a great many cases; we then crushed the appendix and its mesentery with an angioclasp, searing the crushed surface with the actual cautery. This was abandoned after five cases, because of the difficulty of obtaining an efficient cautery at any hour, many of the cases being done in the middle of the night. We then simply cut off the appendix after ligaturing it, pared off the mucous membrane, and touched it with pure carbolic acid; but this seemed to leave a surface ready to form adhesions, and indeed I believe adhesions did form in one man subsequently. The last cases have mostly been done as follows. The appendix is freed and the mesentery ligatured and divided; gauze is packed firmly around the wound, and the appendix and cæcum drawn up as high as possible into view; the appendix is ligatured at its base, a purse-string suture passed around it on the surface of the cæcum; the appendix is cut off, and redundant mucous membrane removed; the stump is touched with phenol, seized with catch forceps and invaginated into the cæcum while the assistant pulls tight the suture, which is made of No. 1 chromic gut. This is a rapid and satisfactory method.

Two pints of saline solution were always

If we found it necessary to drain, we clamped the end of the tube with catch forceps, which were removed at the end of half an hour. By that time the salt solution is practically all absorbed. The wounds are now sewn up in layers with mattress sutures of No. 2 chromicised catgut.

The peritoneum was never washed out, every endeavour being made to preserve all the leucocytes possible. The question of drainage is a difficult one; but the more one sees of the astonishing germicidal power of the peritoneum the less one drains. It always seems to me that the leucocytes have something better to do than to attack rubber tubes. We have altogether abandoned drainage now, except there is a definite circumscribed abscess cavity, or a large pus-secreting necrotic area. When once the cause of the condition, the appendix, is removed, there seems hardly any limit to the bactericidal action of the peritoneum.

The case which died was not drained; it was of a class in which I should now leave a small tube. On the other hand two cases of abscess which we drained suffered a long and tedious illness with fæcal fistulæ, which, however, healed up spontaneously.

In the twelve cases of gangrenous appendicitis there was a quantity of free fluid in the peritoneum, often of the most foul-smelling nature; two of these were drained; none gave any serious trouble after operation. Two cases of small abscess were not drained, and they healed up as well as any. In these latter care was taken to swab the pus from the cavity with the utmost thoroughness, and it was well cleaned out with salt solution, but no attempt was made to shut it off from the general peritoneum afterwards. In the gangrenous cases, where the superficial wound may probably be infected, we now put a small tube down to the peritoneum, which, if there is no discharge, is removed on the second day.

In all abscess and gangrenous cases the Fowler position is adopted, the head of the bed being raised some three feet. It is necessary to put a pillow under the buttocks when this is done. The rectum is irrigated for six hours with salt solution, as follows:—An ordinary douche-can is used, the nozzle passed into the rectum, and the can so arranged that the surface of the fluid is four inches above the end of the tube. The fluid slowly runs in at the rate of about one or two pints in an hour, and as the level falls a nurse raises the can slightly from time to time.

the end of six or eight hours, which the nurses often notice and comment upon; the patient passes large quantities of urine, and the pulse falls below 100 and fills out remarkably.

Woman, 30, ill 36 hours, distended, recti rigid, knees drawn up, abdomen motionless, anxious face, vomiting incessantly, absolute constipation; pulse 152, temperature 97.2. Peritoneum full of free fluid, horribly foul; appendix perforated, the last inch gangrenous, with no adhesions. Ten hours later the pulse was 96, and she was sleeping peacefully. She recovered without a bad symptom.

All those classified as gangrenous were approximately as seriously ill as this woman. I describe her case simply because it is the first of my notes to come to hand. My experience of this class of case till 12 months ago was that the outlook was practically hopeless; but none have died since adopting the routine here described.

Indications for Operation.—We observe the following system:—No operation is done in the acute stage if it can be avoided. We operate during the attack if the pulse is above 100 and is rising; if the respirations are above 24; if the recti are rigid; if there is a mass; or if the attack has lasted five days without marked improvement. As regards first attacks, I am driven to the conclusion that such demand operation after subsidence, if they have been well marked. The operation in competent hands is now so safe, and the risks of leaving to nature are so considerable, that it would seem less dangerous to get rid of the disease as soon as possible.

The varieties:—

Catarrhal.—There is some difference of opinion as to the exact nature of those cases in which there have been well-marked symptoms, and yet the appendix appears healthy on removal. There were eight cases of this description. It might be urged that these would probably recover without operation, and I cannot deny that such is the case. At the same time, careful examination has always shown some lesion, such as minute hæmorrhages, stenosis, microscopic erosion or ulcer, or acute kinking, which would appear to render the future prospects doubtful. However that may be, there was no instance in which the symptoms persisted after operation, though none was ever operated upon unless the illness was well marked.

The *adhesive* cases are unquestionably the most difficult. The presence of adhesions implies that there has been a permanent

change in the wall of the appendix, which would negative the possibility of recovery under medical treatment. Some of these cases are of extraordinary difficulty, and it is impossible to say beforehand, either from symptoms or history, what the nature of the operation will be. Some that we considered likely to be easy turned out to be exceedingly difficult, and I would venture to suggest that when operating for appendicitis the surgeon should be prepared for one of the most difficult operations in surgery. The formal landmark, the anterior longitudinal muscular band, is frequently of little value, because the appendix may be hidden away in a dense mass of adhesions; a better plan then, is to follow up the omentum, which will often be found wrapped around it. The appendix itself may be felt as a hard tough structure adherent to the abdominal wall or intestine; in one case it was attached to the external iliac vein, furnishing a problem of great difficulty. Bad cases are also those in which it is adherent to the right Fallopian tube, which then often has been infected, and contains pus. In one of these, which we removed by the Macburney incision, the tube burst, scattering pus all over the neighbourhood, but no bad results followed. This incision is, however, ill-suited for such an operation. Dr. Foreman prefers the mesial incision for all appendix operations on women. There can be no doubt that it is exceedingly common to find appendicitis co-existent with right-sided tubal trouble, whether as cause or effect it is difficult to say.

Suppurative cases numbered seven. In every instance the disease had lasted five or more days, and a mass was usually palpable from the outside. But a mass does not always contain pus, because frequently it only represents thickened omentum and dense adhesions. In one of our cases we found no less than five localised abscesses within the omentum, which we removed in toto, sewing up the wall without a drain; the patient did well. As a rule it may be said that a localised abscess requires drainage; but the abdomen should be filled with salt solution all the same. The risk of infecting the peritoneum by this fluid is, I believe, small, as the peritoneum is able to deal with far more bacteria than are likely to be spread in this way, especially if we remember Salieri and Muscatello's experiments on the immense increase in leucocytosis caused by saline solution. I am convinced that the appendix should invariably be removed, no matter if adhesions are broken

down thereby. I believe that the great risk in these cases is not from the pus already in the abscess, but from fresh infection due to an appendix which should have been removed. The pus should be thoroughly swabbed out before attempts are made to disentangle the appendix. No trouble need be taken to invaginate the stump; it is only necessary to ligature the appendix and mesentery, cut it away, and touch the stump with phenol.

The *gangrenous* cases should be operated on with all possible rapidity. In our later cases we have abandoned the attempt to sew over the stump, unless the patient's condition is unusually good. We simply tie and cut away the appendix, apply phenol, and sew up the wound, pouring in the salt solution while doing so; the results have been satisfactory. Most of these patients are extremely ill; the pulse rate is seldom below 130; in one case it was 152, and in another 88, but only about half the beats reached the wrist. No attempt should be made to remove fluid from the peritoneal cavity, beyond what escapes of itself during the operation, or can be readily swabbed up from the wound. Although the fluid may contain germs, it also contains leucocytes, and these are too useful to take away. As I have said, we only drained two of these cases, but some of the wounds afterwards broke down, a quantity of foul fluid escaped, after which all went well. These fulminating cases require much care and attention after operation, and every attempt must be made to keep them going till the reaction occurs, generally in some eight hours. The process appears to resemble that which occurs in pneumonia at the crisis.

I recognise that we could not have obtained such satisfactory results without the greatest self-sacrifice and care on the part of the resident surgeons and nurses who took charge of the patients after operation; it is clear that the somewhat severe technique which we follow must put a great deal of extra trouble and responsibility on their shoulders, and I should like to testify to the appreciation which I have of their assistance. The cases were in charge of Drs. C. E. Darcy and S. O'Reilly at the Royal Hospital for Women, and Drs. J. Aspinall, Stiles, Vickers, and Mackenzie at the Royal Prince Alfred. Some of these sat up for hours at night tiding the worst cases through their illness.

And in the gangrenous cases especially credit—perhaps the major credit—is due to those physicians who saw them outside, recognised their desperate urgency, and sent

them straightway into hospital. I am sorry I cannot give their names.

(Read before the New South Wales Branch of the British Medical Association.)

EPIDEMIC INFLUENZA.

By A. C. F. Halford, M.D., Brisbane (Q.).

A WIDESPREAD and serious epidemic of influenza has been raging in Brisbane during the last three months, the first cases occurring at Clayfield about the first week in June. From what I can hear it spread rapidly through the State, breaking out almost simultaneously in many distant places.

There has been such a high degree of morbidity due to it, with dislocation of business and social functions, and not a few lives lost, that one commends the suggestion which has been made to this Branch, that the matter be made a subject of discussion to-night.

Gratified as I am for the opportunity to open this discussion, I must ask you to take the usual apologies as read in order that I may lay before you, without unnecessary delay, the few ideas I have on the subject. I only hope I will be sufficiently dogmatic to excite discussion, for it must be confessed that there is a want of accurate knowledge about many features of epidemic influenza. Our differences of opinion are more likely to be concerned with details of treatment, and opinions about the etiology and prevention of the disease, and on these points I must look to the gentlemen who are to follow me in the discussion for enlightenment.

Incidence.—In the majority of my cases men were affected and, as a rule, suffered severely. With very few exceptions, all members of a household suffered from it, the victims going down simultaneously or very soon after one another. The disease varied very much in severity and type. In most instances the onset was sudden. Headaches were very severe, and so were the pains in back and legs. Temperatures varied greatly, but, as a rule, the higher the temperature the greater discomfort from pains and aches. Some suffered from what appeared to be simply feverish colds, some had typical attacks of respiratory type. Others had severe pains, high temperature, no catarrhal symptoms and resembled dengue. Rashes were infrequent. Complications were common and consisted mostly of pneumonia, pleurisy, otitis media (in adults as well as children), affecting both ears, intercosta

neuralgia, brachial neuralgia, synovitis, and jaundice. There was in some cases a remarkable tendency to reproduce affections to which patients were liable, and for the affection to fly to weak spots. In two persons who had suffered from rheumatic fever the disease was ushered in with pains and swellings of joints. Children who had had whooping-cough and were better from it, began to get the characteristic cough when influenza was contracted. Most of these cases developed broncho-pneumonia as a complication, and two young infants died. The pneumonic cases varied from a mild, patchy broncho-pneumonia with few physical signs to basal lobar pneumonia. The latter as a rule was accompanied by high evening temperatures with marked morning remissions. Rusty sputum was never seen; occasionally there were streaks of blood.

In the present epidemic in my experience there has been the unusual feature of children being readily attacked. In families where the disease was introduced, hardly one child escaped. The commonest form among them was the gastric and broncho-pneumonic. A considerable number had otitis media, requiring puncture of the tympanic membrane. Cervical adenitis is generally present in children, especially if otitis media supervenes. One case was characterised by suppurative adenitis pure and simple, requiring operation.

In three cases the disease was ushered in by convulsions. One adult was seized with a violent rigor coming home in a tram, which lasted half an hour. The temperature ran up to 105, but within an hour fell by crisis, with most profuse perspiration. He was quite well next morning, having no catarrhal or other symptoms.

Gastric influenza I regard as the most interesting form from the point of view of pathology. It is so entirely different from the respiratory form that one is at a loss to understand how such diverse symptoms could be produced by the same cause. I think there is good reason to believe that the gastric symptoms may be a manifestation of neural poisoning and that they are not always dependent on a catarrhal state. It is well known that vaso-motor paralysis is a common result of influenza intoxication. The severe headache, excruciating pain of body and limbs, vomiting and diarrhoea, although dissimilar as symptoms may all depend on a common effect of the poison in causing vaso-motor paralysis of organs corresponding to the disturbance noted. As a rule there are no

morbid changes observable post mortem in the stomach and intestines, for instance, comparable to lesions of the respiratory system, except possibly in those cases where jaundice, hæmatemesis and mæna are observable. This observation lends strong support to the theory of a vaso-motor paralysis caused by the toxin of the disease. In fact, this form of influenza coming on, the headache and vomiting invariably suggests a bilious attack to the patient, and more especially in the case of children are the parents deceived. In some instances the gastric symptoms were ushered in with such appalling suddenness that ptomaine poisoning was suggested. The absence of other cases that day, and the subsequent progress of the disease through the household dispelled the notion of ptomaines being the cause of the illness. A fairly common and painful complication of influenza in the epidemic under notice is severe neuritis. I have seen about a dozen cases of intercostal neuralgia, and in 75 per cent. of those cases the ninth or tenth dorsal nerve on the left side has been affected. A few cases occurred on the right side, and always in the lower part of the chest. It sometimes came early in the disease and sometimes did not appear until convalescence was established. Often it was the only symptom complained of. Sometimes these cases simulated pleurisy very closely. I have records of three cases of brachial neuralgia which, generally an obstinate complaint, was relieved and cured by a draught containing Dover's powder, salicylate of soda, and liq. ammon. acetatis.

I do not think it necessary to say much about diagnosis, as in epidemic form influenza is not difficult to recognise. The thing to bear in mind is that we should not make the mistake of jumping to the conclusion that all cases are necessarily suffering from this cause. It is common at times of epidemics to receive messages that are said to be urgent. One I got a little while ago was of this nature, and as no particulars were available from the messenger, except that the patient was seized with bad pains rather suddenly, I took the case in its order and found I had to deal with a ruptured tubal gestation.

Epidemiology.—Referring to the historical part of this subject, it occurs to me that it would be interesting to consider the effect of modern means of inter-communication between various countries of the world on the spread of diseases of bacterial origin. We read that influenza, for instance, has been

known since the 12th century at least, and in the "thirties" and "forties" of last century fairly severe epidemics occurred in England and the Continent. But it was not until 1889 and 1890, when railway communication had developed into some magnitude and oversea steamers were running to time-tables, that a pandemic occurred. Since then it may be safely assumed that influenza has been consistently going round and round the globe in the track of the commercial traveller and tourist, and now and again exacerbations occur which are serious enough to command the attention of the cablegraphist. Several features of this specific disease are conducive to its rapid spread. The incubation period is the shortest of any disease of its class; susceptibility to the disease is always existent, as the immunity conferred by one attack is very fleeting. The victim is often as not able to go about his business and thus spread the disease. The respiratory tract is in most instances the seat of the disease, and by coughing and expectorating we have the most potent means by which the disease is transmitted from one individual to another. At the same time rooms, offices, railway carriages, tramcars, etc., become readily infected. That infection spreads in this way is emphasised by the fact that in most instances the disease is introduced into a household by some member of the family engaged in outdoor occupation, or employed in business houses, factories, or schools. At the same time too much stress must not be laid on these indirect and impersonal methods of infection. The personal factor in influenza, as in all other infectious diseases, is the important one. Fomites and furniture, drainage and dust are not potent means of spreading disease unless there is evidence of actual contamination. Pocket-handkerchiefs and pinafores in children no doubt will convey the contagia of influenza, measles, scarlatina and diphtheria, and the same may be said of bed-linen and underclothing in smallpox. I cannot see, however, that articles of furniture or clothing that have not been grossly contaminated with the virus of a disease are likely to spread infection. The infectivity of dust is very much over-estimated also, in my opinion, for the simple reason that the contagia of all the diseases of this class are essentially parasitic, and though the organisms manage to survive in dust for a few days or a few weeks, the acquisition of a saprophytic state must largely sacrifice their parasitic activity. For

the same reason I regard air-borne infection as only a bogey. The best object-lesson we have is to be found in plague. For years the exertions of medical officers were misdirected, and tons of expensive disinfectants were wasted, until the observation of Simond on the rat-flea relationship to the spread of plague was published, and the personal or biological factor received due attention.

The object of these remarks is simply to emphasise the necessity of isolating the patient when dealing with influenza, and thus minimise the danger arising from the activity of an ambulatory respiratory volcano.

No study of epidemiology is likely to be conclusive in sheeting home the true cause of infection spreading from place to place unless due weight is given to the fact that patients may be infective long after convalescence has been fully established. Herein lies the commonest source of fallacy—that is, overlooking the personal and searching for impersonal factors. It is now an established fact that the virus of several important diseases may exist for a long time, unsuspectedly, in patients long since regarded as free from infection. For examples, I need only mention the influenza bacillus being found in the respiratory passages, diphtheria bacillus in the faucial discharges, scarlatina virus in nose and ear discharges, *B. entericæ* in urine and stools. Too often we are chasing the saprophyte while the parasite is busy.

Bacteriologically, the chief interest in the disease lies—first, in the fact that the bacillus is not able to survive long outside its host; secondly, there is no doubt that the symptoms simulating true influenza may be set up by organisms other than that described by Pfeiffer. This observation will account for the fact that some people have suffered from merely a feverish cold with marked catarrhal symptoms affecting chiefly the naso-pharynx, a low degree of pyrexia, and little or no constitutional disturbance. Such persons have nevertheless been subsequently struck down with true influenza, marked by bronchitis, pains in body and limbs of great severity, and high fever. This attack is often described as a relapse. I have notes of several cases where an ordinary influenza attack chiefly affecting the respiratory passages has been recovered from, and two or three weeks later the patient has suffered from a typical gastric seizure. Lastly, it is a very important fact to bear in mind that the bacillus may exist a very long time in the respiratory

passages of persons recovered from the disease.

Here, then, is conflicting evidence, for surely it is admitted that true influenza is a very variable disease, and yet it is not altogether likely that these epidemic visitations are always mixed or distinguishable concurrent entities. We want more information on the subject badly.

Mortality.—The mortality of the disease, *per se*, is low, and is estimated at 1 in 2000. But the deaths due indirectly to influenza amount to three times the above rate. Parkes and Kenwood say that, taking into account "the mortality indirectly due to influenza and . . . the excess of deaths from pneumonia, bronchitis and heart disease, the death rate from this disease and its after consequences is not far short of 2 per 1000, nearly equal to the total zymotic death rate now recorded in many large towns." This statement is more easily realised when we remember that about 50 per cent. of the deaths from influenza are of persons aged 60 years and upwards. This contingent death rate is so serious, therefore, that as a deadly terminal infection it should receive more attention from students of preventive medicine and health authorities generally.

I have had no deaths from the disease itself, but it has been a terminal infection in the following instances:—Man, aged 79, suffering from advanced heart disease; man, aged 44, suffering from chronic bronchitis and bronchiectasis; two infants suffering from whooping cough.

Prophylaxis is a difficult problem. In the first place cases are often overlooked in the early stages of the disease, although infectivity is manifested from the establishment of the catarrhal symptoms. Mild cases also readily spread the disease. At the same time the disease can undoubtedly be checked by isolation. The bacillus can exist but quite a short time in the dried state. Hence we have an indication how best to prevent infection spreading. As the disease almost invariably is spread from person to person, and as it is a malady which confinement in bed is almost an absolute necessity for successful treatment and for obviating complications, physicians should insist on patients remaining in bed until convalescence is thoroughly established, for the mutual benefit of the sick and healthy.

As the incidence of the disease in this visitation has been severe on children, and in view of the fact that they often suffer from it in its severest forms, with dangerous compli-

cations not uncommon, it might be advisable to recommend closure of schools. Any persons attending theatres or churches with coughs should be encouraged to leave by their immediate neighbours, and children should be sent home from school if they have coughs while the epidemic is present. Further, some straight talk about expectorating in public places is necessary if we are to mitigate the misery this malady can inflict on the community.

Treatment.—For obvious reasons, and on account of what has already been said, the patient should be advised to go to bed and stay there. I think it is also desirable to state plainly to the patient our reasons for this. It is more likely that the advice will be followed if we do so. I generally advise that no nourishment be given under ordinary circumstances until there is a distinct desire for it. In gastric cases my patients have been ordered to fast for several days. Clifford Allbutt recommends, in the *Lancet* of May 13th, 1905, what he calls a non-toxic dietary (excluding meat) during the long convalescence, but I confess I do not understand the rationale of it. With regard to therapeutics, I always precede drugs by one or two cold packs when there is high fever, with beneficial results, especially in children. Most writers condemn the general use of antipyretics in this disease from their depressing effect. For myself, I never hesitate to use them, but always in small doses, which are directed to be taken every one, two, three or four hours according to circumstances until relief is got, or until four doses have been taken. There is no way to give relief so quickly as by the use of phenacetin or phenazone combined with citrate of caffeine, sal. volatile, and spirits of chloroform. Occasionally I prefer to use the time-honoured Dover's powder, especially where the pains are neuralgic and the fever not high. Sometimes a diaphoretic mixture is sufficient, but it is not so if there is much pain, as is so frequently the case. I use such to fill the gaps in the treatment by the coal-tar derivatives. Aspirin I find of great value in the high temperatures that accompany pneumonic complications. Bromides are sometimes essential to relieve nervous irritability and depression with the sleeplessness that accompanies these states. During convalescence I give cinchona nuxvomica and hydrochloric acid, but, after all, time is the great healer.

A CASE OF SPINAL ANALGESIA WITH STOVAINE.

By J. B. McLean, M.D., Medical Superintendent
Brisbane Hospital, Q.

Mrs. E.R., aged 46, was admitted to the Brisbane Hospital on June 22nd of this year suffering from carcinoma of the uterus. She had a slightly enlarged thyroid gland; the heart sounds were normal and there seemed to be no good reason why she should not take chloroform or ether well. On June 26th she was placed under chloroform, and the cervix, the seat of the disease, was scraped by Dr. Connolly. She did not take the anæsthetic very well, and she was not placed deeply under its influence. On June 30th she was again placed under an anæsthetic to perform the operation of hysterectomy. She took the anæsthetic badly. As soon as the abdomen became at all lax the respirations became shallow and the pulse almost entirely disappeared. She became so bad that the operation was abandoned after the abdomen had been opened. It was then decided to perform the operation under the influence of stovaine, and I wrote to Dr. Zwar, of Melbourne, who had some experience in spinal analgesia, having used this special form of anæsthetic for several operations performed by Dr. Moore, of Melbourne.

Dr. Zwar has also written an article which appeared in the last August number of the *Intercolonial Medical Journal of Australasia*, and to him I am indebted for the practical information I possess.

The operation was performed on July 11th, at 11.10 a.m. Half-an-hour before the operation quarter of a grain of morphia was administered hypodermically to give mental ease to the patient. The skin of the back and abdomen of the patient had been previously prepared.

The stovaine used was taken from Billon's sealed glass ampoules, which contain about 1 c.c. of a 10 per cent. solution of stovaine in 5 per cent. saline. The doses used for this case was 1 c.c. of the solution, which was then diluted with 5 c.c. of sterile water and 5 drops of 1 in 1000 Park-Davis's adrenalin solution.

A lumbar puncture was performed in the middle line between the second and third lumbar vertebrae. There was no difficulty in this, and the cerebro-spinal fluid escaped through the needle at once. Five c.c. was allowed to run out rapidly in drops. This

cerebro-spinal fluid was perfectly clear and was not blood-stained in any way.

The patient lay on her left side on the table with her back well arched. After the escape of the fluid the mixture of the stovaine solution, the water and the adrenalin was slowly injected into the lumbar dural sac, and the patient immediately raised up into the Trendelenberg position. By the time she had been raised up in the Trendelenberg position she had lost all movement and sensation in her legs and thighs, and there was loss of sensation, too, near the umbilicus, which was very pronounced on the left side of the abdomen. She was left in this position until the loss of sensation had reached to within about an inch of the costal margin. This occupied from three to four minutes. She was then again placed flat on the table for about eight minutes and again placed in the Trendelenberg position and the operation proceeded with. The anæsthetic crept up to the costal margin but did not go any further. There was complete loss of knee-jerk when the patient was first in the Trendelenberg position, a very slight plantar reflex was present in the right foot, but this rapidly disappeared.

The only pain the patient had complained of so far was the prick caused by the injection of a needle through the skin into the dural sac. She stated now that she felt no pain, was perfectly comfortable, but that her legs felt dead. Her pulse increased at the commencement of the operation to about 90 and lost some force, but it rapidly became stronger, and during the first two hours of the operation remained steadily about 58 to 60. She complained about her position being uncomfortable, but on readjusting some clothes which had got doubled up behind her shoulder she said that all was right. She had two drinks of diluted whisky and water, but vomited this during the operation. The abdomen was perfectly lax, and the operator remarked that he had never had greater flaccidity of the recti muscles under a general anæsthetic.

There was some difficulties during the operation, the malignant disease having spread into the glands, and the operation was prolonged for two and a quarter hours. At the end of two hours the patient complained of something rolling about in her stomach, and it was evident that sensation was gradually returning, and she then began to complain of pain. A little chloroform was administered, and it was remarkable how little

put her under with the loss of the conjunctival reflex. The patient was let down from the Trendelenberg position, and by the time the abdomen was sewn up she was able to talk to those around her. Her pulse during the last quarter of an hour had reached 90 and stayed there. During the first two hours the patient was able to talk and answer questions, and stated she felt no pain or discomfort in the abdomen, was composed and cheerful, and at no time was there sign of shock. The vomiting may have been due to the morphia or the whisky. During the whole of the operation she had a slightly contracted pupil, due probably to the morphia.

The head of the patient was screened from the operation by means of towels, and she was unable to see either the instruments or any part of the operation. Cotton wool was stuffed into her ears in order that she should not hear any remarks that might be made; but I am afraid this was not a success, as she could evidently hear a certain amount of what was going on. She was a cheerful phlegmatic type of woman and did not seem much concerned about the operation, even after having been told that it might be dangerous to her. She gave her permission freely to anything being done that was thought necessary.

After the operation she was removed back to the bed, and sensation gradually returned, so that by 6 o'clock in the evening she had complete return of motion and sensation. She complained of thirst and perspired freely in the night about the body and face, and was perfectly serene, quiet and comfortable.

Her temperature at 6 o'clock was 99, pulse of 97, and respirations 24. During the operation the respirations never reached over 20. At two o'clock next morning her temperature was normal and pulse 104. At ten o'clock in the morning her temperature was normal, with pulse of 118. There was practically no shock, before, during, or after the operation, and the nursing presented no more difficulties than a minor operation, though special nurses had been appointed to look after her.

This case has run an uninterrupted convalescence since the operation, though it was not till July 17th that she passed urine naturally. She has not complained of headache or any bad after effects.

Professor Barker published his clinical experiences on 100 cases of spinal analgesia in the 23rd March number of the *British Medical Journal* of this year. He used stovaine from the laboratory of Billon in Paris, but his series does not include as extensive operation

as this hysterectomy. He did not use adrenalin in this series except in three cases, though he admits that it probably prolongs the anaesthesia. He states that he has noticed small punctiform hæmorrhages under the skin after its use, and imagines this may give trouble among the spinal nerve roots when injected into the dural sac. However, Dr. Zwar strongly recommends its use where it is desirable to prolong the anaesthesia, and states he has found it eminently successful, as in this case.

Barker uses 5 per cent. glucose instead of 5 per cent. saline. This makes the solution heavier, and he states it can be made, in consequence of its greater weight, to flow in any direction along the canal in obedience to the laws of gravity, and being slightly viscid remains for a considerable time undiffused and exerts its power at a given point.

With regard to the dangers, a case of permanent paralysis of the spinal cord has been recorded; paralysis of the abductor muscles of the eye has been noted; respiratory disturbances may follow its use, especially if the phrenic is involved. One accident of this kind necessitated artificial respiration for two hours before recovery. The needle may not enter the large lymph space into which the conus medullaris enters. I think it better to insert the needle in the middle line into the dural sac. If inserted on one side or the other it is liable to cause unilateral paralysis.

Considering the dangers of its use, the fact that a patient is conscious during the whole of the operation and that it has been recorded that in some cases the anaesthesia has not been perfect, though this may be due to deficient technique, and the fact that it is only applicable to operations below the costal margin, though cases have been recorded of operations on the thorax, it is not likely that this form of spinal analgesia will replace the use of general anaesthetics. But in this class of case where the removal of a malignant growth is the only hope of saving a woman's life and where an attempt at general anaesthesia had nearly cost her her life, it must be of undoubted value, and must take a place among the anaesthetics in general use. I would have no hesitation in again using it in a similar case.

Dr. Bennett told the Wellington (N.Z.) St. John Ambulance Guild recently that during 1906 the number of infants under 12 months old who died in New Zealand was 1600, and competent motherhood could have saved many of these lives.

REVIEWS AND NOTICES OF BOOKS.

THE DIAGNOSIS AND MODERN TREATMENT OF PULMONARY CONSUMPTION, WITH SPECIAL REFERENCE TO THE EARLY RECOGNITION AND THE PERMANENT ARREST OF THE DISEASE. By Arthur Latham, M.A., M.D. (Oxon.), M.A. (Cantab.), F.R.C.P. (Lond.). London: Baillière, Tindall & Cox. Sydney: L. Bruck. Third edition. 1907. Octavo. Pages, viii+257. Price, 5s net.

In this little book Dr. Latham has limited himself strictly to the subject matter indicated in the title; he has found no room for an account of the pathological anatomy, nor yet of the symptoms and course of the disease. We must, therefore, not be surprised that such subjects as mixed infection are mentioned only in the scantiest passing reference. The methods of diagnosis to be employed when pulmonary tuberculosis is suspected are well described, but insufficient stress is laid on the necessity for suspecting the disease when only general symptoms are present and there is not yet any cough, hæmoptysis, or other sign specially indicative of lung affection. The great value and absolute harmlessness of diagnostic injections of Koch's old tuberculin are shortly related. By modern treatment, Dr. Latham means sanatorium treatment, and of this he gives a full and excellent description, which, with a useful chapter on avoidance of reinfection, occupies nearly one-half of the book. So strenuous an advocate of open-air treatment can perhaps scarcely be expected to admit its limitations; still, in view of recent opinion, as expressed for example in the second edition of Cornet's "Tuberculosis" (*vide B.M.J.*, April 6th, 1907), we must insist that Dr. Latham's estimation of the value of sanatoria is far too optimistic. In a supplementary chapter on other methods of treatment the author appraises tuberculin more highly than he did in his second edition, but he advocates ridiculously minute doses without producing an evidence of their value in *pulmonary* tuberculosis. He appears to have overlooked recent evidence in favour of treatment with increasing doses, as originally recommended by Koch. The sane and restrained opinion which he expresses of the value of opsonin estimations is in marked contrast with the exaggerated eulogies of some other writers. Does it indicate that the tide in their favour is on the turn? Among minor criticisms we note the use of the word "cavitation," objectionable enough in any sense, where "cavity" seems to be meant. Calcium chloride is recommended in the treatment of hæmoptysis without mention of the decrease in coagulability of the blood, which (if the use of the drug be continued) follows the initial increase. The dose of pyramidon is stated to be 5 to 30 grains; it should be 5 to 8. The book is well produced; it is printed in large clear type, and is remarkably free from misprints. Though many authors are quoted, references to their works are unfortunately not given. There are three useful appendices, and the index seems very complete. Readers will find this an admirable statement of views at present current in England.

WHAT TO DO IN CASES OF POISONING. By William Murrell, M.D., F.R.C.P. Tenth edition. London: H. K. Lewis, 136 Gower-street, W.C. 1907.

The number of editions published since its first issue in 1881 is an indication of the utility of this little work. It comprises a very thorough list of substances which may prove poisonous, and of their antidotes. In it there are also enumerated many nostrums, and their general composition is given. Very good examples of

the nature of the work are to be seen under the heading of "Mother's Friend," and in the next article entitled "Mushrooms—Poisonous Fungi." It is as reliable as it is ample, and well fitted therefore to fulfil the purpose aimed at.

ON TREATMENT. By Harry Campbell, M.D., B.S., F.R.C.P. London: Baillière, Tindall & Cox, 8 Henrietta-street, Covent Garden. Sydney: L. Bruck. 1907.

The character of individuality which runs through this book is very distinct, and gives life and interest to the opinions expressed, even though one may occasionally differ from them. The freshness and vigour of the thought and clearness of the language make it very pleasant reading, and there will be some who will lay it down from their hands unwillingly. Its range of topics essentially is one which is comprehended chiefly in the everyday life of a physician. In the first few chapters we find the mental and physical personality of the physician, the co-operation of the patient, clothing, etc., discussed with a free hand. Though valuable to the practitioner, it would be much more so to the student about to graduate had he time to read; but certainly it deserves a wide dissemination amongst those who having just attained their diplomas are about to commence their battle with disease. The moderate price will secure, it is to be hoped, the extensive circulation which it deserves.

A TEXTBOOK OF PHARMACOLOGY AND SOME ALLIED SCIENCES (THERAPEUTICS, MATERIA MEDICA, PHARMACY, PRESCRIPTION WRITING, TOXICOLOGY, etc.), TOGETHER WITH OUTLINES FOR LABORATORY WORK, SOLUBILITY AND DOSE TABLES, etc. By Torald Sollmann, M.D. Second edition. Thoroughly revised and greatly enlarged. Philadelphia and London: W. B. Saunders & Co. Melbourne: James Little. 1906.

The title very fully expresses the scope of this volume of over 1000 pages, the first edition of which has been very favourably reviewed in these pages before. It is adapted to the British Pharmacopœia as well as that of the United States, and by the extensive use of small print for the preparations and less general information the most has been made of the space in a work both scientific and comprehensive. The author evidently has put his whole energy into his task, and has thus produced a treatise which throughout has the advantage of being uniform in style. While the descriptions are crisp, they are very clear, and the typographical errors few. In view of the large amount of space devoted to laboratory work, about a quarter of the whole, it is more especially of use to the student. The diagrams are not numerous, but well chosen, and though simple in style answer their purpose.

ATLAS AND TEXT-BOOK OF TOPOGRAPHIC AND APPLIED ANATOMY. By Professor Schultze, of Würzburg. Edited by Prof. Stewart, New York. Philadelphia: W. B. Saunders & Co. Melbourne: Jas. Little.

This book does not profess to be a complete anatomical guide, but can be recommended as a good work of reference for essential practical anatomy, especially, perhaps, for the operating surgeon. The illustrations are beautifully reproduced, some of the best being from the well-known models of His. There are, of course, errors, as in the tracing of the peritoneum, but they do not appear to be of marked importance. One or two of the diagrams are wrongly labelled, and a few would be better if shown inverted. The printing and general production reflect great credit on the publishers.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH SEPTEMBER, 1907.

ALCOHOL AND THE HUMAN BODY.

AN enormous literature has gathered around the question of the use of alcohol in all its various phases; but we doubt if any publication on the subject is of greater value from an economical and scientific standpoint than the recent book on "Alcohol and the Human Body," by Sir VICTOR HORSLEY and Dr. MARY STURGE, of Birmingham. Sir VICTOR HORSLEY'S views on the temperance question are well known, and in this volume we have an attempt to analyse the effects of alcohol on the various systems of the body from the strictly scientific side, and the experiments and opinions of many well-known scientific men are quoted in support of the main arguments of the book.

We all know that a great change has come over the English-speaking race in the last 50 years, and that the amount of alcohol consumed, whether it be in the form of beer, wine, or spirits, has considerably decreased. Some statistics quoted in the book show how this tendency is reflected in the great diminution in the amount of alcoholic drinks prescribed in various hospitals and institutions in England during the last 30 years, and a corresponding increase in the amount of milk consumed, which tends to show that the attitude of the profession has changed, and that alcohol is no longer regarded as a food.

Some of the most striking facts recorded in the book are based on experimental work by HODGE, KRAEPELIN, KURZ, and others, the general result of which is to show that alcohol is a powerful depressant on the

nervous system, and that the popular idea that a man can work more quickly and that his mental powers are more alert under the influence of alcohol is an entire mistake. Many experiments are here recorded, all of which show that even small doses of alcohol appear to impede the conduct of nerve stimuli and so render the work of the nervous system less effective.

Of the general effects on the human body of alcohol taken habitually in excess we are all familiar, although there may be some doubt as to the exact part which it plays in the production of some pathological conditions. By way of example, we may take cirrhosis of the liver. Although it is commonly taught and believed that cirrhosis of the liver results from excessive spirit drinking, we think that the actual proof of the connection and the nature of the connection between the two conditions is open to question. Some odd factor is certainly essential, for there is no doubt that a large number of spirit-drinkers never develop cirrhosis of the liver. But this does not in the least argue against the very serious deteriorating effects of abuse of alcoholic drinks on the body.

No one, moreover, will dispute the fact that the use of alcohol is responsible for an enormous amount of crime of various kinds, and that the general effect of abuse of alcohol is to produce a deterioration of mind and character, and ultimate destruction of all humanity and affection.

While we admit all these facts and the apparently convincing results of these experimental investigations, we cannot help feeling that this work is really a special pleading, and the opinions and experiments of others who do not accord with the views of the authors are not referred to. Hence, we can hardly regard this work, highly valuable as it is, as one completely unbiassed and one giving an entirely unbiassed scientific

opinion upon the question. Physiologists do not always agree on the results of their experiments, and different interpretations are placed on these results. Hence, the work of Dr. STARKE, a German physiologist, which has recently been translated into English and published in America, proclaims an almost entirely opposite view on the effects of alcohol on the body, and he would appear to be as biassed in the opposite direction, and some of his statements are certainly not borne out by facts. To deny that alcohol is a poison, to maintain that it is a foodstuff, that it is a source of strength to the muscles, that it produces heat, and has an excellent effect on the nerves, are statements which are not supported by an exact physiological experiment or clinical observation. There can be no doubt that the attitude which Sir VICTOR HORSLEY and Dr. STURGE advocate is the right one: that is to regard alcohol as a powerful drug which requires care in its administration.

THE PATENT MEDICINES REPORT.

MR. O. C. BEALE, who was appointed a Royal Commission to inquire into and report upon several matters in connection with the importation and sale of patent and proprietary medicines, and to make recommendations, has now furnished his report. This is a very lengthy document, comprising over 400 pages of foolscap, and has been laid on the table of the House of Representatives. Whether it will be available to the general public is a matter of doubt, since some objection has been raised in the House by Dr. LIDDELL against its distribution on the ground that it contains a large number of formulæ which might be utilised by the general public.

The report deals with the subject from every point of view, and reveals an enormous amount of labour, research and thought on

the part of the Commissioner. The exposure of the methods of the abortionists and quacks is such that one would be inclined to think that if this report were read and digested by the public there would be an end of the nefarious practices of these pests of society. But the general public always have been, and probably always will be, gullible, and there will consequently always be persons ready to gull them. But Mr. BEALE deals not only with well-known quack methods and medicines, but with all the proprietary medicines, and this aspect of his report has aroused the ire of the manufacturing chemists and druggists.

In conclusion, Mr. BEALE recommends that "the formulæ must be shown on every proprietary medicine; that no advertisement or recommendation be permitted on the label; that no advertisement of any proprietary or secret remedy be permitted in any publication; that literature respecting such preparations be prohibited from passing through the post; that every proprietary name applied to a medicine be compulsorily registered; that the quality, nature and composition of the medicine must correspond with what it is claimed to be; that all restrictions applicable to patent medicines in the country of origin be made applicable to them in Australia; and that a Bureau of Chemistry be established for the purpose of looking after the preservation of the public health." These recommendations are sufficiently drastic, and if there were any possibility of giving effect to them by legislation the evil effects of self-drugging by patent medicines and powerful poisonous drugs would be to a very great extent prevented. But glaring as are the evils revealed in this report, we have to remember that a very large amount of money is turned over annually in the advertisements and sales of these preparations, and the stringent regulations proposed by Mr. BEALE

would certainly be vigorously opposed by such a powerful combination. We have no sympathy with a servile press which for monetary gains allows its pages to be utilised by these sharks who prey upon the public, and if we cannot secure what Mr. BEALE recommends we should at least press for a stringent Indecent Advertisement Act, which would effectually prevent the advertisements of the quack and abortion-monger, and this would go very far towards putting a stop to the nefarious practices of these individuals. There is no reason why such an Act should not be put on the Statute Book of the Commonwealth at once, and if this were the only immediate result Mr. BEALE would have done an immense service by showing in his report the necessity of such legislative action.

THE MONTH.

The Compulsory Notification of Pulmonary Tuberculosis in New South Wales.

Dr. W. G. Armstrong, the City Health Officer for Sydney, in the course of his annual report, refers to the working of the City Council by-laws for the compulsory notification of pulmonary tuberculosis. This has been in every way satisfactory, and he emphasises the fact that no friction has arisen between the City Council and the medical profession on the subject of notification, and no cases have come to light in which any injury or hardship appears to have been inflicted on phthisical persons through the operation of the by-laws. The practical experience thus gained is a very strong point in favour of making this disease notifiable in all large centres of population throughout New South Wales. It has shown that this is thoroughly practicable without friction, and at a very small expense. Notification is necessary as a preliminary to the disinfection of dwellings which have been vacated by living consumptives, but it is also of great educational value. It is right that the general public should be impressed with the infectiousness of pulmonary tuberculosis, but it is also right that the precautions to be taken against infection should be fully explained. It also gives the knowledge necessary to enable the authorities to direct special

attention to infected spots, and to eradicate what may be foci for the spread of the disease. The compulsory notification of pulmonary tuberculosis throughout New South Wales should not therefore be long delayed.

The Sale of Opium.

Considerable consternation was aroused at the publication of some instructions recently issued by the Customs Department restricting the amount of opium that wholesale houses were to sell annually to the retail chemists. The instructions provided that the wholesale druggists should not sell to any retail chemist in one year more than "five ounces of liquid extract, 2 oz. of solid extract, 4 oz. of powdered or gum, and 2 quarts of tincture of opium." It would appear that these instructions were issued owing to it being ascertained that in some districts, particularly where a number of Chinese residents were located, an amount of opium was sold by chemists much beyond what would be used for legitimate purposes. But while every effort should be made to restrict the evils of opium smoking and morphia taking, it is hardly fair to enforce regulations which would have the effect of depriving the sick and suffering of the relief obtained by the use of this drug. In response to the representations which have been made in various quarters, and by the wholesale houses, the Assistant Comptroller-General now states that there is nothing mandatory in the instructions, but delivers a warning: "It is expected that importers will exercise every care and vigilance in distributing opium, and thus aid the Government in its efforts to discourage opium smoking. If, however, it is found that such care and vigilance are not exercised, the Minister has decided that upon evidence in that direction being placed before him, he will have no alternative than to cancel the license of the importer." We must all agree that such a warning is not only fair, but necessary.

Infantile Mortality in New Zealand.

The question of the prevention of the high death-rate amongst infants is at present engaging the attention of the health and municipal authorities all over the world, and various suggestions have been made and plans of action decided upon, which in some cases at any rate have had the effect of reducing this rate very considerably. A deputation of medical men interested in this question in

Wellington, New Zealand, recently waited on the Attorney-General, urging that some steps should be taken to protect infant life more fully. The Attorney-General stated that there were some 500 children in the infant homes in the colony, most of whom were illegitimate, and it was well known that the rate of mortality was much higher amongst the illegitimate than amongst the legitimate children. It was a question whether more effective supervision of existing homes should be undertaken, or whether the State should establish foundling homes. A few days later, speaking in the Legislative Council, the Attorney-General, according to a report in the *Sydney Morning Herald*, gave in detail the intention of the Government regarding infants in licensed homes. They were, he said, confronted with the danger of a declining birth-rate, and remarked that if the birth-rate had been the same as it was in 1852, 1000 more children would be born during the current year. They must look for a remedy of diminishing the death-rate. The mortality of infants was not declining, averaging about 77 per 1000, while the general death-rate had been steadily declining, and of children legitimately born, 1 in 17 died in 12 months, and of illegitimate children, 1 in every 7 died during the same period. Licensed homes for infants should be under the supervision of a trained nurse. They must stop the system by which the child is sweated of the very needs of its existence. The State should pay what was necessary for the child's maintenance, while doing its best to make the parents pay. The supervision of these homes would be transferred from the police to the Education Department. An officer of the department should have a say in the choice of a home. The State should receive the money from the parents, and pay the keeper of the home. An inquiry would be held into the death of every child who has been in a home, even though he (or she) had left the home at the time of death.

Medical Examination of School Children.

Systematic examination of the pupils attending the schools in the metropolitan district of Sydney is now in progress, and valuable data are being compiled. Particular attention is being paid to weight, height, age, sight, hearing, and general health, and weighing and measuring apparatus are being employed to secure accuracy and uniformity. It is not proposed to obtain the records from

every school, but to secure them in various contrasted centres, so that comparisons may be instituted between the pupils at towns like Moss Vale and Bowral, on the southern tableland, with those on the northern, the western plains, and in the large population centres. The children at Broken Hill, where the air is largely impregnated with fumes from minerals, are expected to exhibit certain physiological features vastly different to those who dwell in the pure oxygenised air of the mountains, or to those in the crowded cities. In addition to these tests, arrangements have been made for the periodical medical inspection of the metropolitan public schools, as regards their hygienic condition—light, ventilation, and drainage. Children are also being examined who appear to be physically or mentally defective, or who exhibit signs of certain ailments or defects, such as breathing through the mouth instead of the nose, continuous discharges from the ears or nose, skin affections, etc. Before, however, the name of any child is placed on the medical list, the teacher has to ascertain if the parent or guardian has any objection to the child's medical examination.

Post-Graduate Work at Sydney University.

—Professor Welsh will give a post-graduate course of four lectures and one practical demonstration on "Principles of Immunisation and their Practical Applications." The class will meet weekly during October, probably on Tuesdays or on Thursdays, about 8 p.m. The lectures will be given in Selborne Chambers, Phillip-street, the practical demonstration at the University. The fee will be £2 2s, payable to the Registrar. Application should be made to Professor Welsh before October 1st in order that arrangements may be made. Should a sufficient number desire it, a second post-graduate course on some subject to be selected later may be held during November and December. Informal meetings for the reading of abstracts of scientific papers in physiology and in pathology will be held in the practical pathology classroom between 4.30 and 6 p.m. during Michaelmas term on Thursday, September 26th, Tuesday, October 8th, and Thursdays, October 24th, November 7th, and November 21st. Anyone interested is invited to attend for any part of the time that may be convenient.

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BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

THE monthly meeting of the Branch was held at the Royal Society's House, Elizabeth-street, Sydney, on August 30th.

The President, Dr. B. J. Newmarch, took the chair, and there were about 60 members present. An apology for absence was received from Dr. R. H. Todd, the honorary secretary.

The President announced the election of the following new members:—Drs. Archibald John Aspinall, Sydney; John Hampton Cahill, Annandale; James Hornidge Chauncey, Delegate; Edmund Daniel Edwards, Glebe; James George Edwards, Sydney; Walter Robert Graham, Sydney; Herbert Williams Kendall, Woolahra; Herbert Michael Moran, Newcastle; William Seldon, Annandale; Joseph Lexton Shellshear, Sydney; Robert Edmund Woolnough, Kempsey.

The President announced the following nominations for membership:—Drs. George Bell, Sydney; Augusto Braccer, Lismore; John Stuart Campbell, Stanmore; Alfred Nicholas Chenhall, Stanmore; Carlo Franceschi, Lismore; George Burnett Mander Jones, Wahroonga; Gordon William Singer Marr, Waverley; George Augustus Paul, Sydney; Morris James Plomley, Narromine; Edward Schuett, Sydney.

Dr. GORDON CRAIG apologised for not being able to exhibit the case of dislocated spleen.

Dr. CHARLES MACLAURIN read a paper on "Appendicitis." (See page 446.)

The PRESIDENT said as time went on, when a more perfect knowledge of the affection was gained, and a still more perfect acquaintance with the different methods of operation, it was as well to go over the ground and perhaps reform our ideas in line. It was true that owing to the universality of the complaint and the host of operators there would always be individual methods of operating; indeed if we glanced only at the different methods advocated we might rightly say, "*Tot homines, tot sententiae*." Dr. MacLaurin had placed before the members present an able paper on the methods adopted by himself, and whilst agreeing in general with the author, he took exception to two points raised. In the first place with regard to the "two inch" incision, which Dr. MacLaurin advocated as the rule, he was totally opposed to it. In operating for appendicitis there could and should not be any such rule; every case must be dealt with on its merits, and it would be generally found better practice to expose the parts more freely than was possible by a "two inch" incision. He considered this a safer and better plan. They would condemn the gynaecologist who would attempt to remove a pyosalpinx through such an incision, but give it as a rule to do so for a suppurating appendix. The fear of hernia did not exist if the operator properly sutured the abdominal wall in layers and did not tear and damage the tissues. He sincerely hoped that if ever he had appendicitis the operator would not adopt a "two inch" incision. In the second place, Dr. MacLaurin stated that he did not operate on acute cases, but waited until certain symptoms and conditions ensued. This "waiting" in acute cases he most strongly deprecated; as soon as the diagnosis was made the operation was justifiable, and in acute cases operative, the sooner the better. Dr. MacLaurin had

certainly qualified his remarks, but no such qualification was, to say the least, necessary. He sincerely thanked Dr. MacLaurin for the able paper he had read, and felt sure that the discussion would be profitable to all present.

Dr. H. CRITCHLEY HINDER said that the length of the skin incision was of very little importance, that probably all surgeons, by splitting the muscles, began and completed most of their operations with an opening a square inch in size, but that if occasion demanded this incision should be made as large as was necessary to safely effect the removal of the appendix. It was admitted that the appendix was most commonly found above the middle of Poupart's ligament. A small incision would mostly discover it there, but, if not, the most suitable incision might be over the kidney, the middle line, or even over the region of the gall-bladder. He knew no certain method of ascertaining whether an appendix was about to resolve or whether it would form abscess, or cause a general peritonitis. He saw a patient two months ago with a pulse of 60 and a normal temperature, with a greyish appendix full of foul pus. He had seen a patient with diffuse extravasation of dirty yellow fluid and a ruptured appendix with a pulse of 90. In three or four instances he had also adopted the draining of inflammatory masses of exudate as Dr. Craig had described.

Dr. C. W. BRUCE said the discussion on such a subject as appendicitis should not be confined to the operating surgeons, and especially with regard to a point like the indication for operation, the general practitioner should be able to give instructive information, for he undoubtedly saw most of the milder cases and many severe ones which never reached the surgeon's hands. The classification which Dr. MacLaurin has chosen was not, to his mind, the best for surgical clinical purposes; a better classification would be such as Mr. Barling gives when quoting his experiences at the Birmingham Hospital. He divided the acute cases as follows:—(1) Cases in which there was diffuse peritonitis, and naturally included in these were what are called fulminating cases of peritonitis. (2) Cases in which there was pelvic and adjacent peritonitis with suppuration. (3) Those cases in which there was localised non-adherent abscess. (4) Those cases in which there was localised adherent abscess. For instance, there stands considerable distinction between these last two classes, for in the latter one finds an abscess more or less adherent to the front abdominal wall and easily treated, while in the former class the abscess is non-adherent and perhaps post-cæcal. He thought Dr. MacLaurin was to be congratulated on the extremely low death-rate, viz., 1 in 69 cases, but he (the speaker) did not quite understand whether he included in this list those cases of diffuse septic peritonitis which were operated upon and found to be of an appendix origin, as he did not hear him specially refer to these. As for the question of the small incision which had been advocated that evening, like their president, he could not regard it a good procedure to attempt, as a routine practice, to dig out, through an incision of two inches or less, an appendix which might be firmly adherent to important structures; and in those cases where the appendix was cystic and sometimes thin-walled—these were said to contain a nearly pure culture of bacillus coli—working through such a small hole must be attended with danger. He was pleased to hear Dr. MacLaurin state that the appendix was removed in all cases. Several times having opened an appendix abscess he had felt disappointed at having to leave the appendix behind, until he was consoled at reading a paper by Mr. G. R. Turner, of St. George's Hospital, where he mentions

that out of 51 cases with abscess the appendix was not seen in 22. He knew it to be the practice of some surgeons, when operating for appendicitis, never to leave the abdomen without the appendix. But was a prolonged scratching about in the wall of a septic cavity in order to find the appendix justifiable? Especially, as Lockwood (himself an advocate for removal) acknowledged, that in only 15 per cent. of those cases of abscess where the appendix was left did it cause any further mischief, and if it did cause trouble it could be more safely and easily removed later on. Only in one instance had the speaker seen much delay in healing; that was when a sinus persisted for some weeks, but closed on the extrusion of a stercolith. With regard to what Dr. MacLaurin had said about leaving saline solution in the abdominal cavity, he believed, he said, this was done in every case. Well, was this necessary? and in some cases would it not be dangerous as a means of conveying infection into areas not already infected? Then, again, while he left this fluid in the abdomen he adopted Murphy's procedure of slow rectal injections. How he reconciled the two the speaker would like to hear. For was it not maintained that by the absorption of large quantities of salt solution from the rectum a reverse current in the intestinal lymphatics was set up so that it flows into the peritoneal cavity instead of out of it, and aided by the Fowler position and drainage the free flow of lymph helped to remove the infecting agents?

Dr. T. FIASCHI said that statements in questions like this were of no value unless backed by statistics. He regretted that he was now compelled to make bare statements; but as the views expressed by some of the speakers were in direct opposition to his own, he was bound to speak. They might consider his practice reckless, but it had the advantage of simplicity. Whenever he had sufficient clinical grounds to diagnose appendicitis, he immediately operated, no matter how acute the case; nor had he ever cause to regret this, except when called too late and already over-reached by sepsis. He never troubled about the length of his incisions, and did not see any advantage in the small incision. Whilst admitting that much of the research of the appendix was done by the sense of touch, he did not see why he should deprive himself of the aid of sight by not making a sufficiently large incision. As regards the type of incision, he preferred McBurney's (the gridiron), continued into the sheath of the rectus muscle, and if exceptionally he required more room, he easily obtained this by slitting upward the sheath of the rectus muscle and the skin. He invariably removed the appendix, and in the many cases operated during the last 12 years he remembered of only one case in which he had failed to do so. He thought he would not be doing his duty to his patients if he allowed them to leave the operation table without having the appendix removed. Those amongst them who dreaded this procedure as dangerous would find that with a little perseverance and management it was possible to unravel with safety from adhesions and inflamed tissues the appendix in almost all cases.

Dr. R. STEER BOWKER had not come that night with the intention of speaking, but Dr. Newmarch's adverse criticism of the small incision had made him do so. Some people made a larger incision than others, but that did not say that it was the best method. He (the speaker) made a small incision and used almost solely his "sense of touch." One could not compare the wounds made by gynaecologists, and even they, he thought, made their wounds unnecessarily large. There could be but little doubt that the smaller the incision

through which the work could be safely done the better, for every inch rendered the liability of hernia greater and also added to the risk of post-operative adhesions, and this was particularly so in dirty cases, where often the whole wound sloughed. With regard to the treatment of the stump, he usually used, as did Dr. MacLaurin, a purse-string suture, but latterly had been using the reverse, Halstead mattress suture of Gould, which was quick and effective; but frequently he had tied the appendix and cut it away. That plan was followed generally by Lillienthal, and was a routine, but he preferred to bury the stump. To clamp the stump he considered unnecessary, and so bad, as done by Koeler, more particularly where the clamped stump without ligature had been inverted into the cæcum, and fatal cases had been reported from post-operative intestinal hæmorrhage. The "outer rectal" incision spoken of by Dr. Craig he considered to be bad, as it attacked the disease from the very area which should be avoided, the "enteronic" area. The operator should keep to the outer side of trouble and do all his work in the "colonic" area—the area of small absorption—and not as Professor Dondridge, of Cincinnati, did, cut over an area near the middle line, dissect out a mass of omentum glands, etc., and in the doing of which he tied the ileo-colonic artery and had about 15 inches of gut slough away, and without getting the appendix, which had to be sought and found by means of an incision to the outer sides. The right thing was a small incision in the *right position*, find the muscular band, and stick to it until the appendix is found, for it always led to it.

Dr. MAITLAND said he had listened to Dr. Charles MacLaurin's paper with interest and pleasure; much he agreed with, some of it he did not agree with. Dr. Newmarch had criticised Dr. MacLaurin, and he considered Dr. Newmarch to be wrong. In the first place Dr. MacLaurin was right in advocating as small an incision as possible, compatible, of course, with safety, always remembering that a small incision can be enlarged. Again, Dr. MacLaurin advocated finding the appendix by touch; in this he was right. He used to think otherwise, but the more experience one gets in this class of work, the more one could rely on the tactile sense. This was brought home to him some years ago by a case in which he could not see the appendix. Dr. Bowker, who was assisting him, evolved it by touch; since then he had more and more relied on his sense of touch and less on sight. Of course, this applied to the less difficult cases. With regard to the use of gloves, Dr. MacLaurin always used them. He (the speaker) admitted the fact that one could not absolutely sterilise one's hands, and that gloves, theoretically, ought to be worn, but if pus was never touched by the hands, if careful attention was given to them, then practically they can be sterilised sufficiently not to infect. Personally, he always used gloves to protect his hands when operating on pus cases, and in doing simple operations which did not require manual dexterity. He used the same incision as Dr. MacLaurin, and thought it was the best. He agreed also with Dr. MacLaurin and disagreed with Dr. Newmarch; he did not think that every case of appendicitis should immediately be operated upon simply because it was appendicitis. Operation should not be done during the full blast of an acute attack if it could be avoided. If one followed the indications for operation mentioned by Dr. MacLaurin, few mistakes would be made. He thought every case of appendicitis should be operated upon, but, if possible, after the acute attack was over. This was the custom he had

followed for some years, and he had not had cause to regret it. He thought a good maxim to follow was when in doubt to operate. Dr. MacLaurin had much authority for leaving quantities of saline in the abdomen in cases of general peritonitis, and not relying on drainage, but he did not agree with his use of it in simple cases of appendicitis.

Dr. GORDON CRAIG favoured a skin incision of about three inches; but, after separating the muscles, the actual opening in the peritoneum would be only sufficient to admit one or at most two fingers. In uncomplicated cases no larger incision was necessary, as the appendix and sufficient of the cæcum could be delivered to convert the operation into an extra-abdominal one. In fat people and cases complicated by adhesions the outer rectal incision was worthy of consideration. He was opposed to immediate removal of the appendix in all cases of localised abscess. If the organ was free and could be separated without breaking down the limiting wall of adhesions, removal was justifiable. In cases with mass formation, unless the patient showed increasing gravity of symptoms, a delay of a week or two to allow the inflammatory mass to subside, exposed the patient to a risk that was very small compared to that of immediate removal. No capable abdominal surgeon should fail to remove an appendix that he sets out to do. The difficulty arose in deciding when.

Dr. MACLAURIN said, in reply, that the two-inch incision was the ideal at which one aimed, but if found too small it could readily be enlarged by longitudinally slitting the edge of the sheath of the rectus. He used gloves partly because it was difficult in many cases to be sure whether an appendix case would be septic or not; they made little difference to the operative dexterity. The injection of salt solution into the abdomen was founded on much experimental work by Mickuliez, Borghardt, Salieri, Muscatello, and others, which had received the *imprimatur* of Metchnikoff, and was probably of real value. He thanked the members for the very kind reception they had given his paper.

The PRESIDENT announced that the new Customs regulation restricting supplies of opium had been withdrawn, also that the Honorary Secretary had interviewed the Customs authorities and had pointed out that as the *British Medical Journal* was registered as a newspaper, members should not be liable to pay Customs duty upon it. As a result of these representations, the regulation had been cancelled.

Clinical Evening.

At a clinical evening held on August 16th, at the Royal Society's House, Sydney, which about 40 members attended, the following cases were exhibited:—

1. Fracture of skull with depression revealed only by exploratory incision—trephining—elevation. Three cases.—Dr. T. FIASCHI.

2. Intrascapulo-thoracic amputation—sarcoma.—Dr. W. J. STEWART MCKAY.

3. Sarcoma of the skull simulating chloroma.—Dr. W. F. LITCHFIELD.

4. Paraffin nose.—Dr. L. HERSHEY HARRIS.

5. Severe injury to brachial plexus.—Dr. R. SCOT SKIRVING and Dr. MACINNES.

After the cases had been examined the chair was taken by the Vice-president (Dr. G. H. Abbott).

Dr. T. FIASCHI read a paper on the three cases exhibited of fracture of the skull, and another on a case of pancreatic cyst (see p. 445) in which death ensued upon rupture and peritonitis. He demonstrated the diseased pancreas and neighbouring parts affected.

Drs. R. GORDON CRAIG, CAMPBELL, SHELTON, FLYNN and P. FIASCHI discussed the paper, and Dr. T. FIASCHI replied.

Dr. W. J. S. MCKAY gave a report on his case of intrascapulo-thoracic amputation, which had been shown. At the first operation in December, 1906, a non-adherent sarcoma was removed from behind the clavicle; a second operation was performed in April, 1907, in which a portion of the brachial plexus was taken away; and a third some two months later, in which the intrascapulo-thoracic amputation was done.

Dr. GORDON CRAIG reported a case in which treatment by the eating of sandwiches made of cotton-wool between two layers of brown bread had been successful in the removal of a gold plate bearing two false incisor teeth, swallowed during sleep. The patient was a woman, aged 30. She woke up early one morning choking. At 11 o'clock on the same morning she complained of pain at the xiphisternum. A diet was prescribed of brown bread and cotton-wool sandwiches and a plate of gruel night and morning as the only food. In four days she passed an olive-shaped body, which was the plate and false teeth so wrapped up in cotton-wool that no point projected. It had taken her half an hour to remove the cotton-wool. Dr. Gordon Craig gave credit to Dr. Bernard Stiles, of Newtown, for suggesting this mode of treatment to him some time previously when Dr. Stiles was his house-surgeon in the Royal Prince Alfred Hospital.

Dr. C. W. REID, Dr. BLACKBURN and Dr. P. FIASCHI discussed the treatment.

Dr. W. F. LITCHFIELD read a paper on the case shown by him of "Sarcoma of the Skull simulating Chloroma." The patient was a boy, two years old, and one of a family of eight children, all the other members of which were healthy. The appearances were bulging of the scalp and eyes, fluctuating tumours of the scalp and nodular (glandular) swellings of the occiput, and behind the ears and below the ears. The appearances began with swelling of the right eye about one month previously. Dr. Litchfield described "chloroma" as a disease occurring in children and characterised by a number of tumours, of a greenish colour on section, springing from the periosteum of the skull and face, and causing in most cases a bulging of the eyes. In addition, the blood shows the features found in lymphatic leukaemia. In the case exhibited, though anæmia appeared to be present, the blood examination disclosed a normal count, so he presumed the disease was sarcoma of the skull and not chloroma. The blood count was 78 per cent. lymphocytes, 20 per cent. polymorphs, and 2 per cent. eosinophiles, which is about normal for a child of two years.

Dr. C. W. REID and Dr. P. FIASCHI discussed the case, and made suggestions in regard to treatment.

Dr. L. HERSHEY HARRIS described the history of the case of paraffin nose which the members had seen, and the mode in which the original deformities had been overcome. The operation had been performed six years previously. The deformity had resulted from a long-standing syphilitic necrosis of the deeper structures of the nose, which had produced a deep necrosis. About two drachms of paraffin at melting point of 110° had been injected by means of an ordinary serum syringe furnished with a platino-iridium needle. The nose had a practically normal appearance, was quite pliable, and no trace of paraffin could be felt.

Dr. A. MACINNES read notes on Dr. Scot Skirving's case of severe injury to the right brachial plexus, which had been shown, in a boy aged 10. About 4½ months previously a tree fell on the patient, fracturing his right

clavicle, left humerus, right and left femur. The fractures had been treated at Quirindi with admirable results. The right arm, however, remained paralysed, with no voluntary movement at the shoulder, elbow, wrist, or hand-joints. Atrophy had occurred in all the muscles. Sensation was good down within about 1½ inches of the elbow-joint, but below this anæsthesia was complete. Dr. MacInnes traced the sensory nerves which were not involved, and inferred that there was a lesion affecting portions only of the brachial plexus. Tests by means of the galvanic and Faradic currents led to a belief that the cause of paralysis, whether it were avulsion or pressure, was situated at a spot where the plexus is composed of six nerve trunks. The electrical reactions had been worked out by Dr. Chapman.

A discussion followed, in which Dr. McKAY, Dr. CRAIG and Dr. BLACKBURN took part, in which the main questions in issue were the exact nature of the lesion, and the advisability of operative interference for the removal of the cause of paralysis.

Dr. ABBOTT congratulated the members on the success of the first clinical evening, and thought Dr. T. Fiaschi to be deserving of their thanks for having been instrumental in instituting clinical evenings. Dr. Abbott announced that the next meeting would be held on November 15th.

Council Meeting.

A MEETING of the Council was held on September 10th, 1907, at the office, 121 Bathurst-street, Sydney. The President (Dr. B. J. Newmarch) was in the chair. The other members present were Dr. Abbott, Dr. Brady, Dr. Crago, Dr. Dick, Dr. Hinder, Dr. MacCormick, Dr. Maitland, Dr. Pockley, Dr. Rennie, Dr. Todd.

Minutes.—The minutes of the meeting held August 27th were read and confirmed.

Finance.—The Hon. Treasurer's financial statement was received and accounts passed for payment to the amount of £70 18s 6d.

Election of Members.—The following were elected members of the Association:—Dr. George Bell (Sydney), Dr. Augusto Bracer (Lismore), Dr. John Stuart Campbell (Stanmore), Dr. Alfred Nicholas Chenhall (Stanmore), Dr. Carlo Franceschi (Lismore), Dr. George Burnett Mander Jones (Wahroonga), Dr. Gordon William Singer Marr (Waverley), Dr. George Augustus Paul (Sydney), Dr. Morris James Plomley (Narromine), Dr. Edward Schuett (Sydney).

The Resolution of November, 1898.—The Hon. Secretary reported that Dr. A. MacCormick had been called upon by a solicitor representing the defendant in an action now pending for alleged malpractice and invited to give expert medical evidence; that the defendant was a medical practitioner affected by the resolution of 1898; that Dr. MacCormick had asked for information as to his position in the matter, having regard to the fact that he was unwilling to meet the defendant in consultation, and that the resolution prohibited him from so meeting him. The Hon. Secretary stated that he had advised Dr. MacCormick to the effect that the Association had done nothing to prevent him from attending at the trial and giving evidence as an expert; that the party could serve him with a subpoena, pay the statutory fee and expenses, thereby compelling him to go or else take the risk of fine; that it was open to him if he attended the trial to see the patient (the plaintiff) and with his consent to examine him either in the presence of all the medical witnesses, or in the absence of all but without consultation with any of them, to hear the medical evidence and form his

opinion on his examination (if such were consented to) and on the evidence of both sides; that he might arrange with the solicitors for the defendant beforehand what fee he was to receive for so doing; that in the event of the defendant serving him with a subpoena he could go or risk the fine, as he thought best, but if he obeyed the summons he could before being sworn ask the Judge not to allow him to be sworn until his fee had been paid; that if the Judge refused this request he was entitled to no more than the statutory fee and allowances. Dr. MacCormick had now been served with a subpoena, and what purported to be the statutory fee and allowances had been tendered. The Hon. Secretary invited the Council to express an opinion on Dr. MacCormick's position in reference to the resolution of 1898 in order that in the event of his attending and giving evidence his conduct in so doing might not be misunderstood by members of the Association. A letter had also been received from Dr. Park, of Narrabri, who had also been invited to give evidence, asking for information as to his position if he were served with a subpoena. Resolved—"That in the opinion of the Council the resolution of November, 1898, does not apply to prevent a member who has been called by a medical practitioner affected by the resolution to give evidence in a trial in which such medical practitioner is a defendant from attending the court and giving expert medical evidence, provided that he does not consult with such defendant."

Customs Duty on the *British Medical Journal*.—The Hon. Secretary reported that under the new tariff a Customs duty of 3d on each copy of the *B. M. Journal* (commencing about August 25th) was charged on delivery by the Post Office. As requested by the Council, he had made inquiry. He had seen the Acting Collector of Customs, the Inspector, and the Post Office Customs officer. The duty had been made payable under Customs Tariff, 1907, Import Duties, Div. xiii, 352 (c), which reads: "Provided matter n.e.i. (except newspapers registered for transmission through the post) being or containing advertisements, etc. . . . per lb. 6d." After the fact had been pointed out to the officials that the *B.M.J.* bore the imprint, "registered as a newspaper," delivery was made duty free.

Laboratories for Clinical Diagnosis.—The Hon. Secretary reported that in reference to the letter dated August 6th, 1907, from Messrs. Parke, Davis & Co., asking for an opinion on the proposal to establish scientific laboratories in Sydney, like those in Detroit, but including laboratories for clinical diagnosis, he had had a visit from Mr. C. C. Murray, the manager, who explained that his personal view was that it was not within the province of manufacturing chemists to undertake medical diagnosis in any form, but that the proposal that his firm should do so was urged by medical practitioners, and that he had written to the Association as a representative body to elicit an opinion. The opinion expressed, viz., that on Messrs. Parke, Davis & Co. "undertaking the work of clinical diagnosis there appeared to be no small risk of interference with the practice of a considerable number of medical men," had relieved rather than disappointed him. He was of opinion that even had his Sydney branch urged the establishment of a laboratory for this purpose the house in Detroit would have withheld sanction, seeing that it had no such laboratory elsewhere, even at its headquarters.

Sale of Opium Restriction.—The Hon. Secretary reported that in regard to the application of August 16th of the Pharmaceutical Society of New South Wales to support the Society in urging the Department of Trade

and Customs to repeal the regulation of August 13th restricting the distribution of opium and certain of its preparations by licensed importers, he had interviewed Mr. Forster, the secretary of the Society, and communicated with Mr. George Elliott, of Messrs. Elliott Bros., and was satisfied on these and other grounds that the licensed importers will not hesitate to supply pharmacists according to their reasonable requirements for medicinal purposes.

Prohibition of Delivery of Postal Matter.—An official list was received of persons, institutes and companies the registering, forwarding or delivery of postal matter for whom is prohibited by the Post Office of New Zealand under section 9 of "The Post Office Act Amendment Act, 1906." Resolved—"That copies of the list be forwarded to the Postmaster-General and to Dr. F. Liddell, M.H.R., with a view to steps being taken by the P.M.G. to prohibit delivery of postal matter to the persons named in the list under the Post and Telegraph Act, 1901, section 58."

Official Correspondents of the Australasian Medical Gazette.—A letter was received from the Hon. Secretary of the West Australian Branch advising that Dr. Albert E. Martin, in his capacity as Hon. Secretary of the Branch, had been appointed official correspondent of the *Australasian Medical Gazette* for the W.A. Branch.

Medical Publication in the Lay Press.—Resolved that the following resolution, passed by the Medical Congress in Adelaide in September, 1905, be submitted for adoption by the Branch at the next meeting, viz., "That it is unethical for medical practitioners to grant interviews to representatives of the lay press on medical matters in connection with which their names appear."

Victoria.

THE ordinary monthly meeting was held in the hall of the Medical Society of Victoria on Wednesday, September 4th. The President, Professor Allen, was in the chair.

Dr. W. A. WOOD showed a boy in whom there was a peculiar development of the ligamentum nuchæ, there being evidently a complete ligamentous septum down to the spinal column. Dr. Wood also showed a child who had been subject to spasmodic wry-neck. Attacks began with flushing of the right side of the face, giddiness, and often vomiting. The head was then drawn down on to the right shoulder for several hours. Examination of the eyes disclosed hypermetropia of third degree. Since being fitted with suitable glasses the attacks had ceased. A third case shown by Dr. Wood was that of a boy aged 7 years, who was blind in the left eye and in the nasal half (temporal field) of the right eye. There was also violent unilateral headache and other symptoms pointing to a tumour involving the optic commissure. Trephining was performed over the left frontal region. On incising the dura mater the substance of the brain was found to be considerably congested. This congestion disappeared while being watched. After the operation, which was performed a month previously, the boy slept well and had no headache. No improvement of vision had resulted.

Dr. J. W. SPRINGTHORPE exhibited a man, aged 44, with a small tumour of the medulla, with involvement of some of the ascending fibres and the glosso-pharyngeal nucleus. He promised a full report of the case at a later stage.

Dr. W. KENT HUGHES showed a patient from whom he had removed a large endothelioma of the antrum, and exhibited the specimen.

Dr. H. CAIRNS LLOYD read a paper on "Two Cases of Puerperal Sepsis treated by Vaccines." In both cases excellent results had been obtained after repeated injections of vaccines prepared by Dr. Bull. The improvement followed the injections so regularly that it could be attributed only to the vaccines.

Dr. W. A. WOOD related particulars of a bad carbuncular condition of the neck, which was spreading rapidly in spite of free incision and curettage and vigorous local treatment. A pure culture of staphylococcus aureus was obtained, and a vaccine prepared by Dr. Bull. The improvement after only one injection was dramatic. No further injection had been necessary.

Dr. R. J. BULL discussed the theory of vaccine treatment and of antisera. In many cases of puerperal fever antistreptococcal serum seemed to make the condition worse. It was a far cry from the prophylactic treatment of vaccination to the treatment of localised infections by vaccines as originally devised by Sir A. Wright, and further still to the treatment of general infections, such as these under discussion, in the same way. The question was—Were we justified in using vaccines in generalised infections without reference to the opsonic index, as in these cases? The answer seemed to be in the affirmative, so far as one could judge from so few cases. The effect seemed to follow in from two to three hours, even before the time necessary for the production of the usual negative phase. In the scrapings from uteri in puerperal infection bacilli were often found. Bacillary vaccines were more dangerous and less reliable than coccal vaccines. In the latter case the recognised minimal doses were undoubtedly justified.

Dr. CUSADEN quoted a case of his successfully treated by antistreptococcal serum.

Dr. SPRINGTHORPE said that no method of treatment could be universally successful in such cases. It was never merely a question of poison and anti-poison; it was a question of a specific response to a specific irritant. The patient's resistive power had to be taken into consideration.

Dr. JULIAN SMITH thanked Dr. Lloyd for reporting these cases, which were undoubtedly encouraging. More cases were, however, necessary before definite conclusions could be arrived at.

Dr. KILVINGTON cited a case under his observation treated by vaccines. Unfortunately, the patient's husband had become dissatisfied before treatment could be concluded, although there had been great improvement. He had heard that the patient was getting worse again.

Dr. D. MONTGOMERIE PATON read notes on "Seven Cases of Defective Lactation treated with Normal Plasma." He claimed to have had successful results from the use of sheep's plasma in small doses.

South Australia.

THE usual monthly meeting was held on August 29th.

Exhibits.—Specimens illustrating the pathology of extra-uterine pregnancy were shown by Drs. Cavanagh-Mainwaring, Wilson, Jay, Marten and Newland.

Dr. TODD showed a specimen of a calcified hydatid.

Dr. GILES showed:—1. Two cases of successful result after unilateral thyroidectomy for Graves' disease. 2. Case of suture of fractured patella with rapid and complete restoration of function. 3. Case of wiring of fracture of tibia; there was comminution, and a large fragment was driven into muscles of calf and was ultimately removed.

Dr. T. G. WILSON showed a pathological specimen of a naso-frontal meningo-encephalocoele.

Dr. H. SIMPSON NEWLAND showed (1) a new high-pressure autoclave, and (2) skiagraphs of ureteral and renal calculi.

Dr. CAVENAGH-MAINWARING showed (1) microscopical specimens of extra-uterine pregnancy, (2) microscopical specimens of chorean-epithelioma.

Papers on "Extra-uterine Pregnancy" were then read by Drs. London, Todd, Jay, T. A. G. Hamilton and Wilson. (To appear in future issue.)

Dr. MORRIS thought that suspicious cases should be examined under an anæsthetic. He insisted on the necessity of immediate operation, in the patient's house if possible, as he had had cases die *en route* to the hospital.

Dr. W. A. VERCO mentioned that in his experience the prolongation of the period in the form of a slight continual dribble was a suspicious sign of extra-uterine pregnancy, and should lead to a thorough examination of the patient.

Dr. CECIL CORBIN mentioned some cases he had met with.

Dr. W. A. GILES said he had had eight cases, all of which had recovered after operation. He congratulated the authors of the papers.

Dr. H. SIMPSON NEWLAND mentioned that there was a chance of securing a medallion portrait of the late Dr. Gosse, whose relatives were willing to donate it to the Branch. He proposed that the gift be accepted and that the thanks of the Branch be conveyed to the donors. Seconded by Dr. C. E. TODD, and carried unanimously.

West Australia.

THE ordinary meeting of the Branch was held at the Perth Public Hospital on Wednesday, August 21st. Present: Dr. Trethowan (President), Drs. J. M. Y. Stewart, Randell, Rigby, Hill, Blackburne, Harvey, Seed, Morrison, Flecker, Cuthbert, Thorpe, Officer, Ambrose, Martin, Teague, Couch. Apologies from Dr. Cleland and Dr. Tymms.

After the minutes had been confirmed,

Dr. MARTIN showed a case of double optic neuritis (syphilitic), which was interesting from the fact that in one eye there was a large section of the retina having medullated nerve fibres. Vision in one eye had been reduced to 6/50 and had quickly improved to 6/18 under mercury and iodide of potassium, and was still improving.

Correspondence.—A letter was read from a medical officer of a country hospital not under Government control, showing the way in which local committees sometimes induce medical men to accept appointments without properly stating the conditions. It was decided to try and obtain further information with a view to the Branch issuing warning notices to intending applicants for these positions.

Referring to a communication from the Council of the N.S.W. Branch, it was decided that the secretary of the W.A. Branch for the time being should act as official correspondent to the AUSTRALASIAN MEDICAL GAZETTE.

Consideration was then given to a bill at present before Parliament to amend the law relating to public health. The discussion centred round the following sections:—196. When any medical practitioner is consulted by any person suffering from tuberculosis, syphilis, or any other infectious or contagious disease, he shall ascertain the nature of such person's employment and his place of employment, and if such person

is employed in the manufacture, manipulation, preparation, handling, storage or sale of food or drugs, the medical practitioner shall forthwith notify the case to the local authority. 197. (1) No person who is suffering from tuberculosis, syphilis, or any other infectious or contagious disease, or who is living at a house where anyone is suffering from any such disease, shall be employed in the manufacture, manipulation, handling, preparation, storage, or sale of food or drugs; (2) for the purpose of this section the medical officer of health may examine any person employed as aforesaid. 239. If death occurs in any case of puerperal fever it shall be immediately reported by the occupier of the house in which the death occurs to the nearest magistrate, who shall inquire into the circumstances and determine whether an inquest will be held. 266. If death occurs during or after or in any way as the result of a surgical operation, it shall be the duty of the person for the time being in charge of the hospital or the occupier of the premises in which the death occurs to immediately report the fact to the nearest magistrate, who shall inquire into the circumstances and determine whether an inquest shall be held.

It was felt that these clauses were too drastic, and that they were unnecessary, and that the clauses about syphilis would involve a breach of confidence on the part of the medical man. The practical effect of the passing of the clause would be that such persons suffering from syphilis would get over the difficulty by avoiding medical men so as to keep their employment unknown, and that thus there would be danger of increased spread of the disease. It was resolved that the Colonial Secretary should be asked to receive a deputation so that he might hear the views of the Branch upon the subject.

Several members referred to the fact that they had had to pay from 1d to 3d duty in order to obtain their "British Medical Journal" under the present tariff.

Queensland.

A MEETING of the Queensland Branch was held on September 6th at the Technical College, Brisbane; Dr. Love (President) in the chair, and an attendance of 12 members.

Dr. HALFORD exhibited a ruptured tubal gestation of the third month, and narrated the history of the case.

It was decided to take a referendum of the metropolitan and suburban members as to whether the meetings should take place on Tuesday or Friday nights.

It was resolved, with the concurrence of every member present, that the Home Secretary should be requested to receive a deputation to point out the necessity for the appointment of a medical man as Government Pathologist.

Dr. HALFORD read a paper upon the recent epidemic of influenza. (See page 449.)

Dr. J. CAMERON said that he had noticed rusty sputum in several cases in which pneumonia had complicated influenza. He thought that the gastric type in the present epidemic had been more prominent in children. For the cough, he thought that morphia and chloroform gave best results. He had noticed that a number of patients complained of severe frontal neuralgia about a fortnight after the acute attack had subsided; this had yielded very readily to gelsemium.

Dr. GIBSON had also found difficulty in treating the cough in influenza in members of his own family. He remarked that discharge accompanying middle-ear catarrh did not cease until the attack of influenza

ceased, and then that it ceased suddenly. The same remark might be made with regard to the faucial symptoms.

Dr. **SALTER** remarked that the treatment of influenza varied very much according to the individual. He regarded the disease as one in which the nerve poison produced depression, which caused in many cases chronic troubles to be lighted up.

Dr. **SPARK** remarked that many cases which had come under his notice very closely resembled dengue. For the cough he had freely given small doses of opium. For intercostal neuritis he had found blistering efficacious.

Dr. **E. URE** had noticed great cardiac irritability in many patients who had tried to fight out the disease without going to bed. In one fatal case, that of a child, the disease had been accompanied with jaundice and a considerably enlarged liver. For treatment she had relied upon small and frequently repeated doses of quinine.

Dr. **L'ESTRANGE** had met with an unusual number of cases of suppurative middle-ear disease complicating influenza, and remarked that in these cases he had almost always found a history of a suppurative condition of the naso-pharynx.

Dr. **CARVOSSO** had been struck with the very large number of cases which suffered from intercostal neuralgia; he had seen one fatal case in an asthmatic in whom there had been very profuse bronchial secretion. He had noticed that the cough was due in many cases to pharyngeal congestion.

The **PRESIDENT** said that the diagnosis of the disease was complicated by the presence of dengue, whooping-cough and measles. He quoted the case of a troopship related in Allbutt's Medicine, where influenza appeared to have been undoubtedly air-borne. He had been especially struck with the large number of cases of hæmoptysis, the blood coming from the congested pharyngeal and bronchial mucosa. He thought that in a large number of cases of costal pain a careful examination would have discovered the marginal affection of the lung with pleurisy. He had been successful in finding the bacillus of influenza in blood-stained sputum. He had also noticed that during the present epidemic relapses had been very common; he had seen two cases in the same family of acute nephritis complicated influenza.

Dr. **HALFORD** replied.

THE AUSTRALIAN UNIVERSITIES.

Sydney.—At a meeting of the Senate of the University on August 12th the Chancellor reported that in accordance with authority given him he had conferred the following degrees on July 4th:—Bachelor of Medicine: John Stuart Campbell, B.A., Herbert Owen Chapman, James Joseph Gilchrist, Martha Isabel Ormiston, Charles Saunders Renwick, Wilfrid James White. Master of Surgery: Herbert Owen Chapman, James Joseph Gilchrist, Charles Saunders Renwick. The degrees of M.B. and Ch.M. were conferred upon Charles Weston Maher. Dr. W. P. Cullen, M.L.C., and Mr. H. C. L. Anderson were reappointed *ex-officio* members of the Council of the Women's College for a further period of two years. A letter was received from the General Medical Council stating that the application for recognition of the degree of Bachelor of Dental Surgery of Sydney University had been

acceded to. A letter was received from the Bishop of North Queensland acknowledging with thanks the grant of the Senate towards the Tropical Diseases Research Fund, and asking when work could be commenced. It was decided to inform him that so soon as communications are received from the other universities, arrangements will be made to commence the research work. Letters were received from the Royal Commissioners for the exhibition of 1851 (1) renewing the Science Research Scholarship for a third year to Mr. Thomas H. Laby, B.A., upon his application, and (2) appointing Mr. T. Griffith Taylor, B.Sc., B.E., to a Science Research Scholarship on the recommendation of this University. At a meeting on August 20th Professor David moved—“That chapter X., section 5, of the by-laws be amended by the addition of the following words in the last clause but one of section 5, after the words ‘departments of study,’ provided that candidates for a degree in science or engineering may select any two of the following languages:—Latin, Greek, French, or German, of division A, in place of II. Latin and IV. Greek, or French or German in that division.” The motion was seconded by Professor MacCallum, and adopted. A report was received from the Barker Graduate Scholarship Committee, reporting that one application only had been received, and recommending—(1) That the scholarship be not awarded this year; (2) that applications be invited in March, 1908, and that an award be made at that time; (3) that the scholarship be subsequently awarded in 1909, and thereafter every second year. The report was adopted. It was further resolved, on the motion of the Chancellor, that a special award of the Barker Graduate Scholarship be made for one year to Mr. E. M. Wellisch, M.A., who was strongly recommended by the Faculty of Science when reporting upon the nominations to the 1851 Science Research Scholarship. At the monthly meeting on September 2nd an application from Professor Welsh for permission to deliver a post-graduate course on pathology during Michaelmas Term, on the conditions approved by the Senate in former years, was granted. A letter was received from the Agent-General for New South Wales acceding to the request of the Senate that he should act as Chairman and Convener of the Committee in London in connection with the selection of the Professor of Chemistry. A memorandum from the Dean of the Faculty of Medicine proposing that immediate steps should be taken for the appointment of a Fellow in Tropical Medicine under the scheme suggested by the Bishop of North Queensland was adopted; and it was resolved that a copy of it be sent to the universities of Melbourne and Adelaide, and to the Bishop of North Queensland. A letter was received from the honorary treasurer of the Dr. F. Norton Manning memorial fund, enclosing the sum of £125 for a foundation of an annual prize in psychological medicine, to be called the “Dr. F. Norton Manning Memorial Prize.” It was resolved that the gift be accepted with thanks.

It is stated that the Otago Odontological Society has examined the mouths of 1250 school children, and found hardly a mouth was free from carious teeth and inflammation of the gums. The examining dentists endeavoured to find out the percentage of those who used tooth-brushes, but the answers could not be relied upon, as some who professed to using a brush had their teeth in a shocking state. One boy, when asked if he cleaned his teeth, said he did “every Saturday after I’ve swept up the backyard.” A little girl, one of a large family, admitted that she used to clean her teeth, but the only brush in the family had been lost.

REVIEW OF CURRENT MEDICAL LITERATURE.

MEDICINE.

Heart Disease and Blood Pressure.

Bishop (*Medical Record*, July 13, 1907) remarks that we have faith in the cure of cardio-vascular disease, because the persistent and patient modification of function of diet, drugs, suitable exercise, and a carefully selected environment finally educates the person's physiological activities so that they act normally after the withdrawal of active measures. In an early case of high arterial tension of nervous origin, the important element in physiological re-education consists in training the patient to eliminate worry, and a tendency to too great concentration of interest in whatever pursuit is occupying him. Next to worry and undue concentration of mental effort comes the question of nutrition and diet. A critical examination of the blood and urine often shows distinct evidence of an excess of food in persons, who are seeking to be built up by physical rest, and a diet selected for its nutritious qualities. When this is the case, the food should be restricted in quantity, sweets eliminated, and meats greatly reduced in quantity. The popular prescription of withholding from the patient all food which has contained blood is in the right direction. Thirdly, but not least in importance, is the matter of physical exercise. Exercise should be carried on systematically whether the patient feels like it or not. A distaste for physical exercise often goes with this condition, and must be overcome by emphatic instructions of those responsible for the welfare of the patient. There is some advantage in the resistance movements, though massage does not seem suited to many patients with high blood pressure. When the patient is under treatment or re-education, the circulation must be regulated as far as possible by drugs that improve the muscular tone of the heart, and those that overcome an excess of tone in the blood vessels. In some instances a few weeks will counteract the commencing high tension, and the individual may go on for years without it developing again. In more severe cases months may be necessary. The intelligent co-operation of the patient and the friends of the patient are absolutely necessary. When there are signs of broken compensation, treatment must be commenced by keeping the patient in bed, but these patients can often least afford the debilitating effect of bed treatment, and the sooner another treatment can be instituted the better. An attack of apoplexy does not preclude the possibility of good results from physiological education in high pressure cases, but, of course, make the problem more difficult. Specially is this the case when melancholic symptoms are present, as mental tension that goes with this state makes the high tension hard to control. Physiological re-education should begin early, but unfortunately this newly recognised condition of idiopathic vascular overtone is not generally enough recognised for the necessity of such active treatment to be appreciated as often as it should. In its early stages it is a disease without symptoms, because the heart brings into play its reserve force, and thus painlessly becomes enlarged, and the severer accidents of the development of Bright's disease, of apoplexy, or heart failure only have to do with the fully developed condition. It behoves every one, particularly if over 50, to have the vital organs examined at regular intervals, so that high tension may be early recognised and prevented.

Aortic Aneurism in a child of four years.

Marcy (*Journal of the American Medical Association*, July 6th, 1907) records the following case. A male child, aged 4 years, was the first child of apparently healthy parents. The father denied syphilis, but admitted two attacks of gonorrhœa previous to marriage; but he suffered from epileptic attacks. Mother quite healthy. At birth the child full time, weighed 12 lb.; was cyanosed and breathless, otherwise well developed. When a few weeks old it had an attack of bronchitis, and when examining the chest the author found a loud systolic murmur, heard best over the aortic cartilage. Compensation was good, and there were no circulatory disturbances. The murmur was taken to indicate a congenital lesion. At four years of age his last illness began with vomiting, a rigor, and fever, which were repeated. Quinine had no effect on these attacks. Between the attacks he was bright and cheerful. At times he complained of distress at the epigastrium, but occasionally in the upper portion of the chest beneath the sternum; sometimes pain was referred to the neck, and turning the head caused pain. There was a gradual loss of flesh and strength and increasing anemia. Physical examination at a later stage revealed the chest more developed. Over the episternal notch an expansile pulsation was evident. Over this, extending in all directions, was a marked systolic vibratory thrill. There was dulness on percussion over this area. A loud to-and-fro murmur was audible at the aortic cartilage and transmitted over the entire precordial region. The radial pulses were equal in time and force. The arterial tension was high, and the arterial wall appeared slightly thickened, as if sclerosed. The pupils were equal and reacted normally; there was no tracheal tugging. The child died suddenly about a fortnight later. The autopsy revealed enlarged glands everywhere. The pericardial sac was distended with blood which had come from the rupture of an aneurism of the ascending and transverse part of the arch of the aorta. The aortic valve was stenosed. The aorta outside the valve showed extensive layers and patches of atheroma, the aortic wall being very thick. The lungs were normal. The liver was enlarged, hard and fibroid. Spleen enlarged, with congestion only. The author considers that the aneurism was probably of intrauterine origin; that the ulcerative process, which reached an advanced state in the aortic wall, progressed after birth until it finally eroded its way through the adventitia into the pericardial cavity, and that some trifling additional strain was sufficient to cause the rupture. The aneurism was no doubt of syphilitic origin. Le Boutilier has recently collected a series of cases of aneurism in early life. Some cases are noted of thoracic aneurism in children under 10 years of age; the youngest was 2 years of age. In most instances they were due to syphilitic changes in the arterial wall.

Asthma.—Observations on 300 cases.

Emmett Smith (*Medical Record*, June 29th, 1907) defines asthma as "a spasmodic affection of the involuntary muscular fibres of the small bronchial tubes, caused by a reflex irritation of the pneumogastric nerve, which contracts these muscular fibres and gives rise to dyspnoea of a paroxysmal character. This definition will harmonise the different theories on this subject, explain the action of various remedies and conditions, and prove useful in the clinical test and in the permanent cure of this disease." He claims that the theory that true asthma is due to a vascular dis-

tension of the bronchial mucosa does not appear to harmonise with the classical physiological experiments or to prove true in the clinical tests; and that if turgescence of the bronchial mucosa was the cause of the asthma, then the use of atropin would be non-effective. While it is true that in true asthma there is vasomotor disturbance, it is not the vasomotor distension in the bronchial mucosa, which the asthma causes, but to the pressure on the asthmato-genous points (Brugelmann) in the nasal fossae. This acts on the pneumogastric nerve, and explains the various phenomena of true asthma. This pressure irritation may be on the nasal septum, or rarely there may be no occlusion of the nares, and it may be due to a closed empyema of the ethmoid cells or sinusitis. That this is the true explanation of asthma is proved by relieving the pressure on these areas, which gives almost instant relief to the spasm. The relief is made permanent by such treatment as will prevent such pressure. When cold is applied to the surface of the body in any way vaso-constriction of the skin results, with intense congestion, and increase of the nasal pressure, which aggravates the asthma. If the skin circulation is normal, the effect of inhaling cold dry air is to contract the nasal mucous membrane and relieve the dyspnoea. Moist heat to the skin-surface relieves the nasal engorgement, cold damp days aggravate, while dry weather gives temporary relief in some cases. The action of iodine when favourable is due to its well-known action in reducing glandular (bronchial) swelling and pressure, and to its specific action on the nasal tissues. Benefit from the use of vaso-dilators comes from their action in equalising the entire vascular system and relieving the pressure on the asthmato-genous areas. Adrenalin acts only on local vaso-constriction, and gives relief in proportion to the diminution in the nasal turgescence. Atropin diminishes the reflex excitability of the pneumogastric nerve. It not only gives temporary relief in asthma, but is useful in other conditions controlled by the vagus nerve. During the paroxysm as much as an eighth of a grain is given in 24 hours. The temporary relief obtained from the use of inhalations is due to the local vaso-constriction on the asthmato-genous areas. If favourable results ensue from treating asthma as an uric acid condition, the author considers that these are due to the giving up of sweets and other articles in the anti-uric acid diet list, as these have the tendency to engorge the nasal tissues and aggravate the asthma. In the so-called peptic asthma, the stomach disturbance is a secondary cause. These peptic cases do not act directly through the vagus nerve, but by engorging the nasal areas. It can be proved that the uric acid condition and the stomach disturbance may be allowed to exist, and yet there will be no asthma if the nasal pressure is relieved. In any case of true asthma, when the nasal treatment has been to relieve air pressure on the asthmato-genous areas, the author has found that articles of diet may be taken with no bad effect which formerly were certain to cause asthma. He now gives no special diet list, and after the treatment has been satisfactorily carried out, the eating of different articles of food and the doing of things that formerly brought on an attack will now have no injurious effects.

Acute Intestinal Tuberculosis of Adults.

Passler (*Munich Med. Woch.*, abstracted in *Medical Chronicle*, March, 1907) gives an account of two cases of fatal widespread tuberculosis of the alimentary tract in adults—one a male 44 years of age, and one a female aged 41 years. The clinical picture in each case was that of a continued remittent, sometimes intermittent,

fever, with vague abdominal pains and very slight pulmonary signs. The diagnosis was very uncertain, and they ran a fatal course in a few weeks. Post-mortem revealed extensive ulceration of the intestines, though not typically tuberculous. This was ascribed to a mixed infection in the pyogenic organisms, staphylococci having been isolated from the blood during life, though in scanty numbers. In both there was an old apical tuberculosis. Passler concludes that intestinal tuberculosis in adults, independently of severe tuberculosis of the lungs or other organs, can give rise to a definite pyrexia, fatal in a few weeks. Probably a mixed infection with pyogenic organisms is as dangerous a complication as in pulmonary tuberculosis. In both cases staphylococci in smaller numbers were isolated from the circulating blood. Passler recommends in all fevers of uncertain origin and doubtful diagnosis the examination of the faeces for tubercle bacilli. At the autopsy military tubercles were found mostly and extensively in the liver, pointing to a partial infection.

Some Unusual Results of Intrathoracic Compression.

Barringer (*Medical Record*, April 20th, 1907) records three cases which show collateral venous circulations of unusual extent, following compression and thrombosis of the superior vena cava and of the left innominate vein respectively, and an uncommon physical sign of bronchial compression. Case 1 was a male, 62 years of age. Twenty years ago he had noticed a swelling of the superficial abdominal veins, of gradual onset, and no history of thrombosis or phlebitis of veins of the face, neck or arms. Since July, 1905, he had had symptoms of pulmonary tuberculosis. The anterior portion of the chest, front and sides of the abdomen, and the left lumbar region showed extraordinary large and tortuous veins, of which the superior and inferior epigastric were more prominent. The blood current in these veins was downward. Examination of the chest with the fluoroscope showed in addition to the lung consolidation a chain of enlarged bronchial glands to the left of the heart shadow. These glands were evidently the compressing factor. In cases of complete closure of the superior vena cava the blood regurgitates from the obstruction, through the cava to the innominate vein, to the internal mammary to the superior epigastric, to the superficial and deep epigastric, to the iliac veins, and so to the inferior vena cava and the heart. The enlargement of one of the left lumbar veins in this case showed that the vena azygos was concerned in the collateral circulation, and that therefore the obstruction was below the opening of that vein. The gradual closure of the vein prevented the appearance of any sudden circulatory incompetence. Case 2 was a male, 33 years of age, who, on February 16th, 1906, immediately after a paroxysm of coughing, felt a sharp pain near the left clavicle. This was followed in the course of a few days by the development of signs of an aneurism of the transverse part of the arch of the aorta. The fluoroscope revealed no presence of an aneurism of the transverse part of the arch of the aorta compressing the left bronchic and the left innominate vein. Ten months later the small veins on the chest and shoulder observed on the first onset showed a marked increase in size and number. The blood current in these veins was downwards. The fluoroscope showed an increase in the size of the aneurism. There were no evidences of bronchial compression. In this case the aneurism first produced a narrowing but no complete obstruction of the left innominate veins. Following this narrowing, numerous

small varicose veins developed in the chest and shoulder. These may be regarded as evidence of beginning collateral circulation, and had probably been present for a long time. Then a thrombosis of the innominate vein suddenly supervened, as was evidenced by sudden venous congestion of the arms, chest and neck. The compression of the bronchus showed the usual signs of bronchial stenosis. Case 3 was a male, 29 years of age, who had had syphilis at the age of 17. In August, 1905, he began to suffer from croupy cough and some pain under the sternum. On November 15th, 1905, he was found to have a heart of normal size, no murmurs, pulse 132, radial pulses equal; he had a brassy cough; respiration, 32; lungs showed sibilant rales everywhere. On November 22nd, 1905, he was dyspnoic; left lung moved very slightly with respiration, with very feeble fremitus over the upper lobe, gave a markedly hyper-resonant note, and was much increased in size, entirely obscuring heart dullness. Breathing over left apex anteriorly was heard only during latter half of inspiration, and then it sounded as if air were rushing through a narrowed bronchus. Posteriorly, breath and voice sounds were almost absent. There was no tracheal tugging. Excepting the peculiar character of the inspiration over the left apex in front, the physical signs were those of empyema of the left lung. Shortly after admission to hospital he had profuse hæmoptysis and died. Some days before death the peculiar physical signs over the left lung disappeared, and evidence was found of an aneurism of the transverse part of the arch of aorta, presenting at and to the right of the manubrium sterni. No autopsy or radiogram was obtained. The explanation of the physical signs in the lung in this case is probably that given by Hoffman, that a *gradual narrowing* of a bronchus favours accumulation of air and increased pressure in the peripheral section of the corresponding lung, and as long as the condition remains comparatively aseptic emphysema is the chief result. *Sudden closure* of a bronchus results in atelectasis, and if there is no infection, atrophy and cirrhosis of the corresponding lung tissue. A localised pulmonary emphysema, though rarely seen, points to a bronchial stenosis.

PATHOLOGY.

Elastic Tissue of Carcinomata.

McConnell (*Journal of Medical Research*, March, 1907) remarks that although a number of investigators have examined into the formation of elastic tissue in tumours, yet the question as to whether or not new fibres are present still remains unsettled. The following cases were examined primarily in regard to the above condition, but another point was considered, viz., the possibility of there being some relationship between the development of carcinomata (particularly of the skin) and changes taking place in the elastic tissue, either in quantity or quality, in advanced life. Sixty-five specimens of new growth (carcinomata) were examined, including 36 epitheliomata, 13 rodent ulcers, 13 carcinomata, 3 malignant adenomata. The method of staining was the acid orcein followed by Unna's polychrome methylene blue, the latter being used for the purpose of revealing the presence of elacin, the form of degeneration in which elastic tissue loses its affinity for the acid stain, but takes up the basic. The author then describes the appearances of sections from these various tumours, and quotes from several writers on the subject. He then proceeds to note that, with the one exception of the mouse tumour mentioned by Tizzer (a primary carcinoma of the lung in a mouse, in which he found the elastic tissue present in larger amount than in the normal lung), it would seem that

an examination of the literature shows that the formation of elastic tissue in malignant growths is very questionable. Those cases in which it has been found in an apparently increased amount are ones in which the possibility of a primary cirrhosis cannot be ruled out. In none of the 65 specimens examined were there any indications that would lead one to suspect that there had been any new formation of elastic tissue. In all there was a distinct diminution of the elastic the further away the area was from the periphery of the growth. In all of the cases there could be found very fine branching fibres, as a rule in the uninvolved areas. In a few instances such branchings were present in the connective tissue between the masses of tumour cells. They generally appeared as the splitting off of a small fibre from a larger. Many of the specimens also showed quite plainly the mechanical effect of the extension of the growth. At its periphery, particularly well shown in the epitheliomata, could be found strata of elastic tissue fibres that had been crowded together. They would follow the contour of the growth, and when the advancing process was a pointed one the fibres would be seen in a broken condition at the apex. Although the degeneration of the elastic tissue may have a bearing on the formation of new growths, nothing has been found in the above cases that allows of definite conclusions being drawn. The impression gained is that in the region of the growth itself most of the changes are mechanical, but fragmentation of the elastic fibres was found in what was otherwise apparently normal tissue. The conclusions the author draws are these:—1. That the formation of new elastic tissue does not commonly occur in new growths. 2. That there is a distinct degeneration of elastic tissue with, in some cases, the formation of elacin in malignant growths. 3. That the degeneration of elastic tissue in old age is one of the preliminary processes. 4. That the majority of cases in which there has been new formation of elastic tissue are those in which there may have been a preceding cirrhosis.

The Organisms of Dysentery.

Jessie Fisher (*Journal of Medical Research*, May, 1907) reports the result of some investigations undertaken at the suggestion of Dr. Simon Flexner, with a view of ascertaining the mode of infection in asylum dysenteries. The stools of normal individuals, as well as of those suffering from mild diarrhoea, were examined to determine the presence or absence of the dysentery and allied organisms. The following is a summary of the work. All cases, however brief the duration, where blood or bloody mucus was found in the stool, invariably yielded the bacillus dysentericus of the Flexner type, with the exception of two mild cases, in one of which the Shiga type was recovered, and in the other the Duval lactose fermenting type. The Flexner type of bacillus dysentericus was recovered twice in simple diarrhoeas, once in very small numbers (four colonies, out of about one thousand picked), the second time in large numbers. The Flexner organism may occasionally be a factor in the production of mild diarrhoeas, as it was recovered in two out of nineteen cases after prolonged search. The Shiga type were never found in simple diarrhoea stools or in normal intestines. No type of the bacillus dysentericus was isolated from normal stools. Bacillus F., a "dysentery-like" organism, was recovered from 44.4 per cent. of normal stools, from 10.5 per cent. of simple diarrhoeas, and from .01 per cent. of dysentery cases. In agglutination and absorption experiments, Bacillus F. produces specific agglutinins for Bacillus F., but not for types of dysentery, colon or typhoid, and differs from all true organisms in its reaction on litmus milk and with some

of the carbohydrates. The frequent presence of *Bacillus F.* in the intestines of the healthy individual renders it of interest and importance, because of the close resemblance to the bacillus dysentericus. *Bacillus F.* was isolated from one case of dysentery and two of simple diarrhoea, and its close resemblances in morphology cultural characteristics, agglutination and absorption reactions place it undoubtedly in the classification with the organisms described by Duval and Shorer, and termed by Torrey pseudo-dysenteries. This organism would seem to be much more closely related to the pseudo-dysentery group (Torrey) than to either the dysentery, colon or typhoid groups. *Bacillus F.* differs from Duval's organisms in the production of permanent acidity or litmus milk, without any amphoteric stage, in its pathogenicity to guinea-pigs, and negative reaction with typhoid serum. It differs from *Bacillus A.* (Duval) in that it ferments saccharose, from *Bacillus B.* (Duval) in that it does not ferment dextrin but does ferment saccharose, and from *Bacillus C.* by not fermenting dextrin. *Bacillus F.* differs from the colon bacillus in that it does not coagulate milk, is not mobile, is not agglutinated by the colon immune serum, nor does *Bacillus F.* serum agglutinate the colon bacilli. The colon bacillus ferments all sugars with the production of gas, while *Bacillus F.* does not form gas with any of the carbohydrates and does not ferment dextrin or inertia. *Bacillus F.* inhibits the growth of both the Shiga and Flexner type of dysentery organisms in vitro. Torrey suggests the possibility that these lactose fermenters may by a gradual change of habitat and evolution lose their power to ferment carbohydrates and thus in time approach the Shiga type. This suggestion hardly seems tenable, as cultures under experimentation for a considerable time have not changed perceptibly in their characteristics.

Sepsis and Acute Leukæmia.

Erb (*Deut. Med. Wochensh.*, May 23rd, 1907, abstracted in *Boston Med. and Surg. Journal*) reports a case of lymphomatosis with a leukæmia blood picture, occurring in connection with a streptococcal sepsis. The autopsy showed an exquisite lymphomatous metaplasia of acute blood-forming organs. Streptococci were found in the blood and various glands just before death, their point of entrance being apparently necrotic tonsils. Blood examination showed 2,250,000 reds, 26,700 whites, 45 per cent. hæmoglobin. The white cells were made up of 91 per cent. lymphocytes, the majority of which were large with faulty staining nuclei. Erb does not agree with Türk that in these cases the sepsis is the primary infection, but thinks that without experimental proof is offered to show that a lymphomatosis can develop on the tissue changes produced by a previous septic infection, we must consider the leukæmia as primary and the sepsis as a terminal infection. An interesting finding in the case was that in a hæmorrhagic area in the testicle, the nature of which, whether septic or a leukæmic infiltration, could not be determined, the lymphoid cells in the interstitial tissue were phagocytic. It would seem that in acute leukæmia the lymphoid cells acquired the faculty of phagocytosis, which is certainly not a function of normal lymphocytosis.

PEDIATRICS.

Relapses in Typhoid Fever.

Koplik and Heiman (*Arch. of Pediat.*, January, 1907) remark that relapses in typhoid fever are more common in children than in adults—about 15 per cent. in the former. The mortality is exceedingly low. The usual

relapse in a child is from one to two weeks. As a rule the temperature is continuously high, between a rapid rise at the onset and a rapid fall to normal at the termination of the relapse. A constant symptom in addition to the prolonged temperature elevation is enlargement of the spleen, leukopenia in about 60 per cent., and mild abdominal symptoms in about 50 per cent. of relapses in children. Complications in these cases are mild and infrequent; for the prediction of a relapse no reliable signs are furnished by the character of the interpyrexial period, nor by the course, duration and severity of the original attack. Persistent enlargement of the spleen after defervescence occurs in a fair proportion of relapse cases; and a relapse following a mild primary illness is not as likely to be repeated as one occurring after a severe original attack. In the discussion that followed, Dr. Rotch suggested that the bacteriological examination of the blood is a reliable adjunct in the diagnosis of a relapse in typhoid fever, as relapses are often difficult to determine. As the Widal reaction at any rate lasts for a long time it is not of much value in determining a relapse. On the other hand, it may happen that the reappearance of the typhoid organism in the blood will definitely determine the diagnosis. Some very good work had already been done in connection with blood cultures in the relapses of typhoid fever, the organism having been found to reappear at this period.

Tuberculous Cardio-vascular Affections in Children.

(*The British Journal of Tuberculosis*, July, 1907).—Tuberculosis of the circulatory system rarely gives rise to disease that manifests itself during life. The pericardium is most frequently attacked. The inflammation which follows is usually of the plastic type, and in chronic cases leads to the formation of firm adhesions. These sometimes produce a layer of considerable thickness, containing areas of caseous material. The heart, however, is rarely found to be enlarged, as is so commonly the case after rheumatic pericarditis, and very few examples have been recorded where there has been evidence that the adhesions have seriously hampered the action of the heart. Yet in some instances the cardiac muscle may be invaded by tuberculous material spreading inwards from the pericardium, and in other cases tuberculous masses of considerable size may be met with in the heart-wall which have arisen independently of pericarditis. More commonly, smaller tubercles may be scattered through the cardiac muscle. Another affection that has been described is tuberculous endocarditis, and tubercle bacilli are said to have been found in the vegetations. Endocarditis, however, when associated with tuberculous disease, generally occurs in chronic cases where secondary infections are present. The vegetations on the cardiac valves with little doubt are produced by septic micro-organisms, and tubercle bacilli when present appear there later. Not only the heart, but the blood-vessels may suffer from invasions by the tubercle bacilli. It has been thought by some that tubercles in the walls of small blood-vessels in the lungs are a source of diffusion of tubercle bacilli through the body. Other observers state, however, that tuberculosis of the wall of a blood-vessel rapidly leads to thrombosis, which blocks the vessel if small, and covers over and excludes the tubercle from the circulation of the lumen if the vessel be wide. Tuberculosis of the blood-vessels, therefore, like tuberculosis of the heart, is of more interest pathologically than of importance from the clinical standpoint.

MEDICAL MISCELLANY.

THAT prolonged exposure to the X-rays may result in azoospermia is well known. Dr. A. C. Jordan has his X-ray tube enclosed in a protection box, wears a protective apron, conducts the X-ray treatment with the tube in a protective shield, and himself keeps at a distance of a few yards from the tube. Dr. A. Schönberg, of Hamburg, encloses himself within a cabin lined with sheet lead. The switchboard is within the cabin, and he observes the tube and the patient through a small window of lead-glass.

In Chicago recently 100,000 signs were posted all over the city. The signs read as follows:—"Post no bills. Don't sweep dirt into street. Don't spit on the sidewalk. Don't litter the streets. Police will enforce the above."

The Department of Health is gradually but surely reducing the number of deaths from tuberculosis in New York city. The rate has been decreased from 4.27 to the 1000 of population in 1881 to 2.6 in 1906.

At Westminster (Eng.) the executors of the late Dr. Oldham, a distinguished ophthalmic surgeon of Hove, proceeded against a widowed lady of advanced age for surgical fee and attendance. It was Dr. Oldham's practice to charge a guinea for every three miles, and his account amounted to £168, made up of 19 visits; Worthing, where the patient lived, being ten miles from Brighton, and 100 guineas for the operation, with three guineas as the anæsthetist's fee. The account was sent in a number of times, and the defendant had eventually paid £80 and contested the remainder, urging that a "local practitioner" like Dr. Oldham should not charge a widow lady 100 guineas for a single operation. The jury returned a verdict for the plaintiff for the full amount claimed.

A technical chemist, of Dewsbury (England), has discovered an electrolytic process by means of which it is possible to sterilise rags, etc., in large quantities, and it is claimed that in this way woolworkers may be freed from the risk of contracting anthrax, as the process can be used to kill the anthrax bacilli and spores in the crude material.

Owing to the increase of bubonic plague in Trinidad, Venezuela has suspended traffic with the island.

The "freak" dinners in America given by millionaires have assumed what may be termed a pathological aspect. At Pittsburg an epidemic of whooping-cough is strongly in evidence. A certain lady who, with her son, is suffering from the disease, gave a "whooping-cough fête" lately to her fellow-patients. A competition was organised for those who whooped the loudest and longest, and, similarly, consolation prizes were offered for those who had the feeblest paroxysms.

At the out-patient department of the Brompton Hospital, the largest hospital in London devoted to diseases of the chest, an important new departure has been made in dealing with out-patients suffering from consumption. Each one is asked to allow his condition to be reported to the health officer of his district. If he consents, active steps are taken by the health officer to improve his hygienic surroundings and to prevent the spread of the infection. Further, the health officer

is asked to send to the hospital any members of the patient's family who appear to have been infected with consumption.

It is urged against the theory that the flea is the important agent in spreading plague from the rat to man that infants under one year of age in India are more or less immune to plague. The incidence on infants is very small. This immunity is shared with the aged. Fleas probably are not attracted to old people, but the same cannot be said of infants who sit, lie on, and crawl about the floor.

There are in the city of Tokyo, Japan, alone 1100 public baths, in which it has been calculated that over 400,000 persons bathe daily. The daily tub is taken after the work of the day is over, and the dress is changed at the same time; but in summer and among persons of leisure the bath is sometimes taken three or four times a day. It is only those who are so poor that they cannot afford a bath at home who go to the public bath-houses. The baths are hot baths, taken at temperatures ranging from 110°F. to 120°F., though occasionally this is exceeded. The sexes bathe together, and there is no indelicacy connected with this custom, with which the people have been familiar from childhood. Of late years, out of deference to Western prejudice, mixed bathing has been forbidden by the Government, but this order is observed only by a bamboo laid across the surface of the water separating the sexes. Every man bathed before going into action, and made himself as near surgically clean as possible, while in barracks in Japan the soldier bathes every night; in transports *en route* to Manchuria he had at least two baths a day. At the front he bathed at every possible opportunity.

The throat specialist, exhibiting his laryngoscope, remarked to a nervous woman: "You would be surprised to know how far down we can see with this instrument." And then as he was about to place the laryngoscope in her throat, she apologised for having a hole in her stocking.

The Imperial German Statistical Bureau has published figures showing that on January 1st there were 27,026 automobiles in the country. According to these figures, in the half-year ended September 30th last there were 2290 automobile accidents in Germany, of which 673 caused injury to persons. The number of persons killed and injured amounted to 1570, including 51 killed; of the latter 9 were chauffeurs, 9 passengers of the automobiles, and 33 other persons. In 1024 cases the cause of the accident was determined, and in 478 of these too rapid running or failure to give the alarm signal was given as the cause, while 220 were caused by unskilful steering, 26 through disregard of stop signals, 53 through failure of brakes, 174 through lack of proper precaution on the part of persons in the streets or roads, 48 through slippery pavements, 20 through breakage of parts of the machine, and 5 through explosions. Suits were brought in the courts in 695 cases, and of these 625 were against chauffeurs.

In accordance with the recent Imperial decree against the consumption, sale, or cultivation of opium, the opium shops in the native quarter of Shanghai were closed on June 22nd, and similar action is soon to be taken in the surrounding districts. Contrary to expectation, no trouble was encountered from the populace.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Medical Fees in France—The New Chancellor of Oxford University—A Soirée of the Royal Society—The University of London—Guy's Hospital.

At the present day in the French provinces (says the *British Medical Journal*) the fee for a visit is from three to five francs, with an additional franc per kilometre of distance from the doctor's house. In Paris the fees vary from three francs in the workmen's quarters to five francs in the better parts of the town. The modern doctor not only receives more money for his visits, but he visits much more than his predecessor in the two previous centuries. A general practitioner in Paris in a good quarter often earns £1200 a year. There are some two hundred who earn £1000 a year; four to five hundred who make from £600 to £800, and two thousand who earn from £320 to £600. In the provinces, except in the case of beginners, the minimum seldom falls below £400 for a doctor who has a horse and carriage to command. Those who have a considerable reputation and who work hard may make from £800 to £1200 a year. For consultations the usual fee to hospital physicians and surgeons is £2, and to those who have the title of "professor" £4. In the consulting ranks there are some 40 in Paris who earn from £4000 to £8000 a year, or an average of £6000. The leading physicians do not make more than £8000 a year, but there are at present ten surgeons whose professional income is estimated at £24,000. Fees for operations range from £80 to £400. Taking the hospital surgeons of Paris as a whole, their earnings range from £2000 to £4000 a year. In the provinces some surgeons make £4000 a year; in the larger towns there are a few specialists who earn on an average £800 a year.

Lord Curzon, of Kedleston, was admitted to office as Chancellor of Oxford University on Saturday, May 11th. The installation took place in the Sheldonian Theatre, which was crowded to its utmost capacity. Nearly 200 years have elapsed since a Chancellor was admitted to office at Oxford. The Earl of Arran was installed formally in 1715, but since then successive chancellors have been invested with office, without public ceremony, at their own places of residence. The Vice-Chancellor, Mr. T. Herbert Warren, President of Magdalen, opened the Convocation, and said that the object of the meeting was to inaugurate the reign as Chancellor of Lord Curzon, of Kedleston; and further, to confer the honorary degree of D.C.L. upon the Right Hon. Frederick Robert Moor, Premier of Natal. The Chancellor having, in response to the Vice-Chancellor's request, made the declaration *do fidem*, the Vice-Chancellor then said: "Most honourable and noble Lord, I, by the authority committed to me by the distinguished man to whose place and honours you are to-day succeeding, Viscount Goschen, and also by the authority of the whole University, admit you to the office of High Chancellor of this University. I pray and beseech Almighty God that He may grant that all may turn out happily and prosperously for our dear University, and that you may discharge and enjoy your honourable office for many years." (Turning to the members of Convocation): "*Habetis Cancellarium.*" Dr. Murray, Rector of Lincoln, the Public Curator, then offered to the newly-elected Chancellor the congratulations of the University. Lord Curzon, in reply, said: "Scarcely three years ago in this theatre I received the high honour of the degree of D.C.L. from the hands of the illustrious Chancellor whose loss, so gravely felt by this

University, by the State, and by the Empire, you, sir, have befittingly deplored. Little did I think that the time would so soon come when the proudest distinction that the University can bestow would be conferred upon me in his place. Though you have alluded in indulgent terms in your graceful oration to the few incidents of any mark in my public life with a view to winning for me the favour of this learned Convocation, I recognise that in comparison with my predecessors I must appear to be very unworthy to occupy this chair. May I console myself by the thought that I have sat at the feet of the two latest of these great men, and have sought to imbibe their lessons? I speak of Lord Salisbury, who lent such weight of character and such power of intellect to the service of the State, and who has been so greatly missed both in the University and in Parliament during the anxious times that have followed his death, and of the late eminent Chancellor, Lord Goschen, whom death has just taken from us in the vigour of a green old age, and whom I remember having heard say that he counted it the foremost honour of his long and distinguished life to have been called to this chair. He enjoyed the office of Chancellor for but a short period; but within that time how faithfully he discharged his duties to this University, how fully he satisfied the expectations that had been formed upon his appointment, how wisely he sought, and how wisely he gave advice you all know. Unable to compete with these illustrious men, but inspired by a similar love for our common mother, I can endeavour to follow in their footsteps. Perchance in these hallowed surroundings, and in the work which they provide, a tardy alleviation may come to me for inconsolable sorrow; and though a youth not yet wholly past may lay me open to the charge of inexperience, it may yet leave me with sufficient strength to address myself to the duty that calls. You, sir, have indicated with light and skilful touch what is the nature of that task. For my part, I would fain hope that the future is one not so much of danger as of hope. At a time when there is much uncertainty in the public mind, it is of supreme importance that a clear and steady light should shine forth from this ancient watch-tower of learning. At a time when education has become the interest of the whole nation, whither should the nation turn for guidance but to her who has grown up, but never grown old, with the nation; who has nurtured it and been an example of all that is best in its character and life? At a time when the currents of the old and the new are running side by side in the same channel, let it be for us to show that Oxford is equally old and equally new, and that in her age she is eternally young. But for this purpose there is need for fresh activity, for largely increased resources, and for the self-sacrifice and enthusiasm of all her sons. We have already commenced the task of examining the educational requirements of Oxford, and of raising the means by which they may be met from public or private sources. Relying upon prudent counsel of those who reside in Oxford, and appealing to the liberality of the wider circle of those who have dropped their residence, but not their love, I have taken up this labour, and will prosecute it with all the ardour at my command. To this revered University, proud of the unexpected honour which she has bestowed upon me, but prouder still that the opportunity has so speedily arisen of testifying my gratitude and devotion, I pledge my lifelong faith."

About 600 guests were received at Burlington House by Lord Rayleigh, the President of the Royal Society, at its May soirée. The exhibit which attracted most attention was probably the mono-railway system of Mr.

Louis Brennan, which is thus described by the *Morning Post*:—"The invention at present only takes the form of a small model in bright aluminium, shaped something like a motor-launch, running on two central wheels at bow and stern over a single rail the size of a gaspipe, and capable of carrying a man of 10 stone. The contrivance has gone beyond the range of theory, and has already proved itself equal to every expectation within the limits of its size. Mr. Brennan has established a miniature system in his own grounds at New Brompton, with sharp curves and inclines and a bridge of wire-rope across a valley, and he recently invited a party of press representatives to witness the apparatus in operation. The most surprising property of the vehicle is the absolute stability of its upright position. An acrobat may ride a bicycle over a slack wire, but what if he shifts the centre of gravity to one side or the other. Mr. Brennan's car ran over the wire-rope first empty, then carrying a boy of 4 stone, and afterwards a man of 10 stone. It came to a standstill in mid-air, and maintained its upright position as if by magic. The shifting of balance made no difference. Heavy weights stated to be in the ratio of ten tons to the full-sized vehicle—the model being on the scale of one-eighth—were not merely placed on its sides, but thrown on with some force, and the law of gravitation seemed to be in abeyance. Not only so, but a mysterious opposing force was exerted, the vehicle actually tilting upward slightly on the side that received the additional weight, in absolute contradiction to what might have been rationally anticipated. The thing seemed to be exerting an intelligent effort, as if aware of the danger that threatened and prepared to resist it. In taking curves it slowed up automatically to the degree necessary to pass over them in safety, always judiciously tilting inwards. It went over uneven ground quite steadily, and climbed hillocks with ease, taking an incline of 1 in 2½ without flinching. A wire rope was flung in almost haphazard fashion over the ground, with loops and 'S' curves, and the machine, with its ingenious arrangement of bogie wheels, travelled over them all in a business-like way that increased the impression of its native intelligence. These tests were applied with a view to showing the adaptability of the invention to military or pioneer railways, laid hastily over rough countries and along hillsides, without any excavation for obtaining a level line. The suitability for passenger traffic was only a matter of inference, for if the machine would work so well in adverse conditions it might be supposed that on an even way it would do infinitely better. In fact, Mr. Brennan has planned a waggon, 100 feet long and 20 feet wide, having 24 central wheels to distribute the weight, and a speed of something over 150 miles an hour. This travelling palace is designed to have a perfect stability that no shifting of weight can destroy, and to glide along like a skater on smooth ice. As a result of experiments extending over 40 years, Mr. Brennan has discovered a new means of applying the familiar scientific principle of gyrostatic action. That the spinning of the gyroscope would enable bodies to maintain an upright position was already known, and so also was the second or precessional movement, which operates against permanent stability by shifting the centre of gravity. Mr. Brennan reasoned that if this adverse influence could be neutralised enduring stability would be ensured, and his invention was accordingly based on such automatic acceleration of the precessional movement as would prevent its interference with equilibrium. But, even so, some lateral movement remained, and this was effectively dealt with by the simple process

of using two gyroscopes spinning in opposite directions, so that any movement in one would be compensated by the other. The gyroscopes work in a vacuum, on a plane in opposition to that of the plane of the wheel, and only a fraction of the motive power of the vehicle is needed to keep them revolving. Indeed, if the power were shut off altogether they would continue to revolve for two or three days by their own impetus. Obviously there is here a great element of safety, but if for any reason the gyroscopes should be stopped there are supports that can be lowered to keep the vehicle in position. The latter operation is performed by hand, and though this would doubtless suffice in practice, it may be permissible to suggest that if a means could be devised of automatically fixing the supports when the revolutions slowed down to a certain point the confidence of nervous travellers would be increased and a possible source of objection on the part of Parliamentary critics would be removed. In the small model the revolving discs are only five inches in diameter, and it carries an electric storage battery, though any other kind of power can be used. The invention effects a considerable saving of motive power as compared with the methods now employed, and suggests possibilities that range from the motor car to the flying machine." Dr. Otto Schlick exhibited a working model showing the effect of gyroscopic action in steadying ships at sea. The Director of the Natural History Museum presented a remarkably fine specimen of the Orapi obtained by Major Powell Cotton in the Ituri Forest. Mr. H. St. J. Donisthorpe exhibited some ants and a nest, chiefly for the purpose of introducing the beetle *Lomechusa strumosa*, which he has re-discovered, and which is a nursing of the ants, cherished by them on account of certain succulent food that it is able to supply. Some beautiful tropical butterflies shown by Dr. F. A. Dixey exemplified curious alterations in appearance according to the seasons in which they emerge, those that come in the dry season being of much more modest appearance than others, by reason, it is supposed, of the greater difficulty of maintaining their existence and of escaping their enemies. The tabby cat was traced back by Mr. R. I. Pocock with the aid of various skins to its distant ancestors, the European and North African wild cats. Professor Seeley described a skull of the South African Saurischian, a terrifying prehistoric reptile of carnivorous tastes and enormously powerful jaws. This is the only specimen known, and enough of his bones have been obtained by Professor Seeley to enable him to reconstruct the brute. Mr. R. H. Biffen showed the results of some useful experiments as to susceptibility to disease in wheat and barley. He has found that when susceptible and immune specimens are crossed the hybrids become extremely susceptible, and that, in the next generation, there is practical immunity. Mr. S. G. Brown explained the method now in general use of the relay working of long submarine telegraph cables, an automatic perforation exactly producing the original perforations for re-transmission. A flint 21 inches in length, the longest discovered, with the exception of one in the Dorset Museum, gave forth a ringing musical note when struck by Mr. Carus-Wilson, its exhibitor, who also showed many mineral constituents crystallised in a piece of Cornish granite, which was intended for a gate-post, but was rejected as faulty. An ingenious contrivance, shown by Mr. H. Cunynghame, was a detached gravity escapement, so arranged that the impulse on the pendulum of a clock was given by a light arm falling by the action of gravity; and a helio-chronometer by Messrs. Pilkington & Gibbs exemplified a simple and

admirably-devised scheme for obtaining Greenwich time at any place by the aid of the sun. Sir Benjamin Stone's photographs of Egypt, numbering about 800, occasioned much interest, and there were many other matters connected with various branches of science to occupy visitors.

The annual graduation ceremony of the University of London was held in the Great Hall of the University on May 8th. The chair was occupied by Lord Rosebery, the Chancellor of the University. The Principal presented his report for the year, in the course of which he referred with satisfaction to the incorporation of University College, the effect of which was to make the University a teaching body on an extensive scale. He mentioned that the number of entries for the forthcoming matriculation was 3050, to which 450 should be added for candidates under the regulations for the school examination. The number of candidates for the various examinations was 11,139. The gifts to the University during the year amounted to £52,182, including £25,000 from the estate of Mr. A. Beit, £10,000 from the County Council, and £13,334 from the Goldsmiths' Company. In conclusion, Sir A. Rücker stated that the incorporation of King's College, the scheme for which was practically complete, would involve the raising of a large sum of money, and was one of the most important of the many schemes before the Senate. Before the graduation ceremony, Lord Rosebery drew attention to the gratifying features in the Principal's report. At the outset of his remarks, his Lordship asked leave to refer to a personal matter. He said he thought some members of the London University might have been surprised to see their Chancellor recently a candidate for the chancellorship of another University. It might have been thought that he wished in that way to sever a connection with which he was proud, and that might have caused some misapprehension. There never was for an instant the slightest question of his election to the chancellorship of the University of Oxford. What he did do, rightly or wrongly, in response to a requisition which was almost overwhelming, was to lend his name to a movement of protest which was organised on that occasion, but without any expectation or possibility of election. On the result of that contest the University of Oxford was at any rate to be congratulated, because it had obtained an excellent Chancellor, and London University had at any rate, though not that satisfaction, the complacent feeling of having retained the services of a Chancellor who, though wholly inadequate to the great duties of that supreme post, could not be excelled in devotion to its interests by any member of that University. The Chancellor then proceeded: "We have to lament in the past year the loss of Lord Davey, that eminent Judge who was the chairman of the Royal Commission by which the University was placed on its present basis, and who always was a warm and cordial friend of this University. We have also to lament the death of Sir Michael Foster, not merely eminent for his scientific attainments, but also dear to this University as its representative in Parliament. On the other hand we have some reason to congratulate ourselves that a graduate of the University and a member of the Senate, Mr. Justice Cozens-Hardy, has been raised to the position of Master of the Rolls, and we can only view with the greatest satisfaction the elevation of so warm and true a friend of our University. The story of our University is one almost monotonous story of prosperity and efficiency. I do not say that it has not thorny questions to face. There are no great bodies in the world that I know of that are remote from such questions

or have not to face them, but at any rate on this harmonious occasion I do not propose to face them. We see in the report of the Principal that your annual entries have increased from 1854 in 1899-1900 to 3041 in 1906-1907, an increase of 63 per cent. That might seem a small matter in a University in which the matriculation was merely a form, but the proportion of failures in our somewhat severe matriculation is more than 60 per cent., and the growth must therefore be regarded as a gratifying proof of the anxiety of the best young minds in the country to become members of this University. Let me quote another pregnant sentence from the Principal's report: 'The total number of internal students is now 3300, an increase of 14 per cent. above 1905-6, which in itself was 12 per cent. higher than that for 1904-5.' Those are all proofs of growing vigour, and as long as we pursue that path, so long as we are encouraged by these conditions, the University of London has nothing to fear. We have also to recall, for it is a matter to record, the incorporation of University College, which became a fact on January 1 of this year. We have also to face the incorporation of King's College, and when certain pecuniary difficulties are surmounted that incorporation will take place without further impediment, but do not think that that impediment is a slight or nominal one. We have been benefiting by great benefactors in the past, but I am not so confident that there is the same facility for them in the future. Those great fortunes built up in South Africa, which have been so liberally abused and have been so liberally applied, have been to a large extent the sources of our prosperity. When we think of the names of Wernher, of Beit, and Currie, and of the at least equally illustrious name of Rhodes—though but a small portion of his benefaction has come here, the greater part having gone to his own University of Oxford—when we think of those names we cannot altogether recognise the justice of the criticism which has been passed on those fortunes or on their application. But I am very doubtful whether colossal fortunes are being built up in South Africa at the present moment. I am rather sceptical as to whether those golden fortunes of which we read in the famous hymn, 'From Greenland's Icy Mountains,' are still continuing to flow in their rich abundance. Apart from South Africa, there is a general, perhaps a natural, but certainly an unreasoning, movement against any superfluity of wealth which may exist in this country. But it is also to be remembered that these benefactions can only come out of that superfluity of wealth, and if you destroy and cut short those persons who are possessed of that superfluity you are killing the bird. I will not lower the bird by descriptive denomination, you are killing the bird that lays the golden eggs. When that bird is killed we shall have to look increasingly to the State for assistance, because if the State carves out vast sources of affluence to itself from superfluous wealth it will also have to undertake those responsibilities which hitherto have fallen upon that superfluity. I cannot on this occasion fail to enumerate some of the benefactions which we have received in the past year, amounting to no less than £1000 a week. That shows the estimation in which this University is held. There is £25,000 from the estate of the late Mr. Alfred Beit, a man whose name has been frequently the object of censure in political circles, and with whom I only had the pleasure of acquaintance as a colleague on the Rhodes Trust, but of whom so far as I can see I can truly say no more generous and single-minded soul has recently been among us. Then we have our good friends, our con-

stant friends, and those are the best after all, the Goldsmiths' Company. That Company has one supreme advantage over all individual benefactors, which is that it cannot die. We should regret to think that any shears could snip the thin-spun life of that Company and convert our annual expectation into one legacy for good and all—heavily taxed by the Chancellor of the Exchequer. Then we have our generous benefactor, Mr. Martin White, who has done so much for sociology in this University, and who has brought over the distinguished Japanese Baron—I will not venture rashly on the pronunciation of his name, but I well know the spelling of it—to deliver interesting lectures on the subject of Japanese education. I will allude to no more of these. I will not go into details on this occasion, but our gratitude is not less to those who are unnamed. I wish to say one word on a movement, on a spontaneous movement, which I hail from the bottom of my heart. To-day, for the first time in the history of this University, on the inspiration of the students themselves, the day will be closed by a solemn service of gratitude to the Almighty in Westminster Abbey. I say, ladies and gentlemen, that no happier inspiration has occurred to our body corporate. It is right, it is meet, it is fitting, that at this period of your lives, when you may roughly draw the line between study and practice, that you should in procession proceed to the historic shrine and offer up to the Almighty your thanks for the blessings which He has vouchsafed unto you, and your prayers that your career may be not unworthy of this University or of the Empire in which it is a central educational point." At six o'clock, Westminster Abbey was filled by a large congregation, which included many graduates and under-graduates in their academic garb. The procession from the west door was headed by the Clergy, the Dean, the Precentor, the Canons and Minor Canons; then came the Chancellor, the Vice-Chancellor, Sir P. Magnus, M.P., the Principal, Lord Reay, 18 members of the Senate, five principals of schools, and a large number of doctors in the various faculties. Sir F. Bridge (King Edward Professor of Music) was at the organ. The Dean read the Bidding prayer, the form of which was that used by the University of Cambridge, *mutatis mutandis*. The anthem was Elvey's "Wherewithal shall a young man cleanse his way?" and the hymns, "O God of Bethel" and "Praise, my soul, the King of Heaven." The Dean preached from the Revelations of St. John, chapter 3, verse 21: "To him that overcometh will I grant to sit with Me in my throne, even as I also overcame and am set down with my Father on his throne." He thanked God that that ancient church should declare afresh its attractive power in the midst of our modern life, and gather so many of the choicest elements of the intellectual progress of London, together with such a representation of the young lives on whose true development and their dedication the future of England depended. The Dean delivered the Benediction, and the graduates with the Senate left the choir in procession.

In the treasurer's report of Guy's Hospital for 1906, which has just been issued, it is shown that the demand for beds continued unabated during the year. The aggregate number of in-patients was 8447, as compared with 8626 in 1905, the decrease arising through two medical wards being under renovation during a part of the year. The number of out-patients, on the other hand, increased from 137,792 to 147,521, an increase spread over every class of case. Of the 8447 in-patients accommodated, 501 occupied the wards on January 1, 1906, and 7946 were admitted during the course of the twelve months. Of the number treated, 6704 were discharged as cured or relieved. 474 as unrelieved, and death occurred in

734 cases, as compared with 792 deaths recorded in 1905. The Renovation and Building Fund, towards which the sum of £57,152 3s 6d has been received or promised at the close of that year, was augmented during 1906 by £3139 16s. The provision of an amount approximate to the balance of that fund remains a vital need in order to discharge the outstanding debt of £27,500 to the Re-endowment Fund and to complete the works included in the objects of the appeal. The income and expenditure account, which includes donations to the appeal as well as legacies, shows a total income, ordinary and extraordinary, of £75,670 17s 10d, which provided for ordinary expenditure £57,375 14s 6d, building improvements £7304 5s 4d, and enabled the Governors to reduce their indebtedness from £36,000 to the £27,500 above referred to, leaving a balance of £2490 18s carried to capital account. In addition to the receipts included in the income and expenditure account, sums were received for the Re-endowment Fund, which now amounts to £266,372 18s 10d, leaving a balance of £233,627 1s 2d remaining to be subscribed. To the grant of £8000 from King Edward's Hospital Fund was attached the comment that "the Fund viewed with satisfaction the continued economical management of the hospital." In order to maintain the gratifying position reached by the institution, continued special endeavour is, it is pointed out, imperative until the hospital is assured of a yearly income sufficient for its needs.

Victoria.

(FROM OUR OWN CORRESPONDENT.)

Melbourne Hospital Elections—Infantile Mortality—Dental Bill.

THE four-yearly elections of the honorary staff of the Melbourne Hospital have once more come and gone, and once more is the question being asked—How much longer is the medical profession going to be a party to such scandalous scenes as are enacted at each election? Election of professional officers by the general body of subscribers must necessarily be of a most unsatisfactory nature. Even the successful candidates cannot feel very proud of themselves under the circumstances. One of the successful candidates in thanking subscribers through the press expressed a hope that this would be the last election held under similar conditions. The scene both inside and outside the hall in which the elections were held was almost beyond description. The usual disreputable army of election touts was to the fore. The street had to be kept clear by the police, the corridors were so thronged by the loud-voiced fraternity that it required a considerable amount of nerve to force one's way through them, and in the hall itself the candidates and their friends still pestered subscribers and were even allowed to most obligingly assist them in filling in their ballot-papers. One is pleased to note that some members of the Hospital Committee realise the unsatisfactory nature of such a method of election. Failing some action in the matter by the Hospital Committee and the subscribers, it is hoped that before the next election the Victorian Branch of the British Medical Association will step in and take such action as will render a repetition of such undignified and unprofessional scenes impossible.

The question of infantile mortality has been very prominently before the public during the last few months. We in Victoria have a death-rate among infants under 12 months old of 94 per 1000 births, which is higher than that of any other State except West Australia. South Australia has a death-rate of 82, and New Zealand only 73. It will thus be seen that

there is great room for improvement in Victoria. A large public meeting was held and a sub-committee appointed to consider details in connection with the proposed amendment of the Infants' Life Protection Act. The chairman of the Board of Health, Dr. W. P. Norris, issued a most valuable memorandum on the subject. Now a bill has been circulated in the State Legislative Assembly to amend the Infants' Life Protection Act in many radical directions. One of the main provisions will be to place the care and supervision of the boarded-out infants and children under the Neglected Children's Department with the appointment of women inspectors. In the past, such inspection as has been carried out has been by the police.

Another bill of interest to medical practitioners at present before the State Parliament is the Dental Bill. In the past all legally qualified medical practitioners were entitled to practice as dentists and to call themselves such. Under the new bill, however, a definite course of study is compulsory before registration is granted. The rights of present medical practitioners are, however, safeguarded by a provision that they can be registered as dentists if within six months of the passing of the Act they make application to be so registered, and pay a prescribed fee. Another clause also allows any medical practitioner to perform any dental operation in the ordinary course of his medical or surgical practice, or where the services of a dentist are not reasonably obtainable.

MEDICAL MATTERS IN PARLIAMENT.

Prohibited Letters.—In the House of Representatives on August 13th, Mr. Johnston (N.S.W.) drew the attention of the Postmaster-General to the action of the New Zealand postal authorities in prohibiting the transmission by post of pamphlets and other printed matter of medical "quacks," and asked if he was aware that most of those against whom the prohibition had been directed were Sydney and Melbourne firms. The Postmaster-General, in reply, said the order referred to was made against firms who were said to have their places of business in Sydney, and in three cases in Melbourne. He had given instructions for inquiry into the nature of their business, in order to satisfy himself whether similar action should be taken in connection with their correspondence going through the post. On August 29th the matter was again referred to by Dr. Liddell (N.S.W.), who called attention to the fact that letters addressed to certain firms which had been stopped by the Postmaster-General had been allowed to pass by order of the Acting Prime Minister, and he desired to know the reason for the cancellation of the former order. The Acting Prime Minister replied that he was not conversant with the matter, but he understood that under certain conditions the delivery of letters had been permitted. Dr. Liddell: Surely the Minister must be aware of the nature of the business carried on by these people? The Acting Prime Minister said he would consult the Attorney-General on the subject, but he thought that this was a matter entirely for the State to deal with.

Patent Medicine Report.—In the House of Representatives on August 29th, Dr. Liddell (N.S.W.), on the adjournment of the House, referred to Mr. O. C. Beale's report as a Royal Commission on drugs and secret preparations, and said that the formulæ were contained therein which would be a danger in the hands of unprincipled persons. The report had already been printed at a great expense, and it was proposed to print further copies, the total cost of which would amount to £1000. Before this action was taken he trusted, in the

interests of the community, that the Acting Prime Minister would make full enquiries into the matter. The Acting Prime Minister said that he agreed that either the report was worthless or very valuable, and he promised to secure the opinions of professional men before he took any further steps. He had received a letter from a firm of lawyers warning him not to distribute copies, but this had been received after the copies had been circulated. There was a person haunting the precincts of the House in reference to the matter, but he had refused to see him. Mr. Johnston: Has Mr. Beale any special qualifications? The Acting Prime Minister: He was a member of a Royal Commission in New South Wales, in company with medical men, who obtained evidence of a startling character, and it was for that reason that he had been appointed a Royal Commissioner in the present instance.

Some Anomalies of the Customs Tariff.

THE following letter, addressed to the Honorary Secretary of the New South Wales Branch of the British Medical Association, has been handed to us for publication:

R. H. TODD, Esq., Hon. Sec., 16th Aug., 1907.
British Medical Association,
121 Bathurst-street, Sydney.

Dear Sir,—We have no doubt you have had called to your attention anomalies with regard to the new Customs tariff, and we do not wish to trespass upon your time, but are sure you will be interested in an extraordinary development in connection with the duty on hypodermic tablets. Upon attempting to clear a quantity of these in small glass tubes containing 25, the *ad valorem* duty amounts to £4 14s 11d; the bottle duty is 1s 1d per dozen, £6 6s 1d; so that, roughly speaking, the bottle duty is 50 per cent. higher than the *ad valorem*, or over 600 per cent. on the value of the tubes, or so-called bottles. In paying *ad valorem* duty on the tablets, *ad valorem* duty is paid on the tube, or so-called bottle, as it is represented in the package as a whole, so that two duties are paid on the one thing.

Another matter that will be of interest to the medical profession is that opium duty is 30s a lb. Whether it is of gum opium, 1 lb. of concentrated tincture, or 1 lb. of tincture, this 30s is demanded on the lb. of tincture, including the spirit, as on the lb. of gum opium. If a pill containing one-eighth grain of opium is imported, the department demands that the full weight of the pill, including excipient and sugar coating, be taken for duty, that is, the sugar and excipient are chargeable at the rate of 30s per lb.

Possibly anomalies as above have been called to your attention, but in case such should not be, we are taking the liberty of doing so.—We are, etc.,

PARKE, DAVIS & Co., per C.C.M.

P.S.—The total duty on the tablets mentioned above is £11 1s, as against £4 14s 11d under the old tariff.

Under the provisions of the new tariff, whereby duty is charged on the advertisement portion of magazines imported into the Commonwealth, an attempt was made recently to charge medical men a duty of 3d per copy on the *British Medical Journal*. The matter was brought before the Council of the New South Wales Branch of the British Medical Association, and the Honorary Secretary was requested to interview the Collector of Customs, and point out that the *British Medical Journal* was a registered newspaper, and as such not liable to duty. Owing to these representations the duty was not enforced, and some medical men who had paid the duty under protest have had the amount refunded. Any who have not received the refund should apply at once for it.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, the Medical Officer of Health, reports for the month of August, 1907:—Deaths registered in the metropolitan municipalities numbered 569, exclusive of those in the Gladesville and Callan Park Hospitals for the Insane. This mortality is again very heavy, though less so than that experienced in July. It is equal to an annual mortality rate of 12·29 per 1000 of the estimated mean population. When corrected by the inclusion of the metropolitan proportion of the deaths in all the benevolent asylums and hospitals for the insane throughout New South Wales, the death-rate becomes 13·31 per 1000, which may be regarded as the correct figure. The causes for the high mortality were similar to those of last month, namely, the prevalence of influenza and whooping-cough, and a heavy mortality from diseases of the heart and blood-vessels. Influenza was more fatal than it has been in any month since June, 1904, and 27 deaths were attributed to it. Whooping-cough was responsible for 23 deaths—a heavy mortality, though less than that recorded in June. Diseases of the heart and blood-vessels caused 93 deaths—a very heavy death roll from this class of disorders, though 10 less than in the previous month. Measles was prevalent, and caused 10 deaths. Diarrhoeal diseases were less fatal than usual, even for August. They caused 10 deaths. Infectious diseases other than diarrhoea caused 77 deaths, of which 27 were due to influenza, 23 to whooping-cough, 10 to measles, 4 to diphtheria, 4 to typhoid fever, 6 to puerperal fever, 2 to scarlet fever, and 1 to cerebro-spinal fever. Phthisis was more fatal than usual. It caused 47 deaths, while the average number for the month during five preceding years was 39. Respiratory diseases were slightly more fatal than the average, causing 88 deaths, against an average of 84. Cancer and Bright's disease were about as fatal as usual. The former caused 33 deaths, and the latter 31. Deaths of infants numbered 102, which is equal to an infantile mortality rate of 81 per 1000 births. The principal causes of infantile mortality were:—Whooping-cough 15, measles 2, diphtheria 2, prematurity 21, developmental diseases 30, convulsions 3, meningitis 3, respiratory diseases 12, diarrhoeal diseases 5, intestinal obstruction 3. Of the notifiable infectious diseases, 173 attacks were notified. Of these, 83 were scarlet fever, 71 diphtheria, and 19 typhoid fever. Within the city of

Sydney, 15 cases of pulmonary consumption were notified under the City Council's by-laws. Six dwellings were disinfected after deaths from phthisis, and four dwellings after the removal from them of living consumptives.

Infectious Diseases.—During the fortnight ended August 26th only 11 cases of typhoid fever were notified, according to a return issued by the Board of Health. Six of them occurred in the metropolitan districts. Scarlet fever still continues rather prevalent, and 95 cases were reported for the fortnight. The metropolitan districts provided 43 cases, the Hunter River districts 35 cases (and one death), and the remainder of the State 17 cases. Seven cases came from Sydney, 8 from Hamilton, 7 from Newcastle, and 8 from Wickham. The number of diphtheria cases was 50, of which only one terminated fatally.

Adulterated Foods.—During July 175 samples of food were submitted by various local authorities in the metropolitan and country districts to the Board of Health for analysis. Milk samples numbering 155 were analysed, and in 13 cases adulteration was detected. Of 27 samples of groceries analysed, 4 were adulterated. The chemical evidence in 15 cases was such as would support prosecution if undertaken. The board directed that two vendors be formally warned.

The Sydney Water Supply.—Dr. Stokes, Medical Officer for the Board of Water Supply and Sewerage, reports as follows:—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, August, 1907:—

Colour	32° Brown.
Clearness	Marked.
Odour	Nil
Suspended matter	Very slight.
Total solids	9·0000
Chlorine	3·1000
Free ammonia	·0024
Albuminoid ammonia	·0108
Nitrogen as nitrites	·0000
Nitrogen as nitrates	·0051
Oxygen absorbed in 4 hours	·0531
Permanent hardness	1·8
Total	2·8

NOTE.—Parts by weight per 100,000.

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during August, 1907 —

Final Effluents from -	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification.		Incubator Test. Seven days at 57° C
			Suspended Solids.	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Nitrogen as		Oxygen Absorbed in		Albuminoid Ammonia.	Oxygen absorbed in Four hours.	
							Nitrites.	Nitrates.	Three Minutes.	Four Hours.			
Chatswood ..	.. Slight	Faint	3.50	12.0	3.720	.240	.013	.193	—	.707	84.6	81.0	No decomposition
Folly Point ..	.. Faint	Nil	.60	10.0	3.250	.080	.013	.659	—	.328	93.9	89.3	„ „
Balmoral ..	.. Slight	Nil	1.20	11.8	2.600	.300	.115	1.235	—	1.352	77.8	68.4	„ „

Dairies' Inspection.—The Board of Health has been furnished with a return relative to 86 dairies in the Ulladulla municipal district and 53 dairies in the Dowling police district, visited by the board's officers. At Ulladulla 2734 milch cows were inspected and 7 were condemned. Of 1009 cows inspected in the Dowling district only one was condemned. The local supervision in each case was found to be efficient, and two dairies only, both at Ulladulla, were found in a bad state.

The Plague Menace.—Though the last case of plague in man reported in Sydney occurred on May 19th, the city is still menaced by the possibility of a further outbreak. After an apparent diminution of the disease among rats for some time, a fresh infection appears to have occurred in Sussex-street. On September 2nd two rats taken from different buildings on opposite sides of Sussex-street were found to be infected. One of them came from premises in which nine plague-stricken rats had previously been discovered. The Board of Health promptly advised the City Council, and active steps were at once taken with the purpose of thoroughly cleansing the premises in the hope of preventing any further spread of the disease among the rodents. Poisoning and trapping are being done continuously. Along the Darling Harbour front poisoned baits and traps have been used unremittingly for six months past, with satisfactory results, and reports received from time to time indicate that there are not nearly so many rats in the area which has caused so much trouble in the past. During August 16 plague rats were taken in Sydney, but 10 of them came from one building. During the first week of this month four rats were found to be plague-infected. Three of them were taken from a store in Sussex-street where the City Council staff is carrying on cleansing operations, and the fourth came from a wharf in the neighbourhood. The continuous occurrence of plague amongst the rodents in that part of the city is a very unpleasant reminder that the danger of a further outbreak of plague is still present, and householders should not relax their efforts in the war against the rats.

Victoria.

Infectious Diseases.—The returns laid before the Board of Health last month showed that the position with regard to typhoid was normal for the fortnight ended 10th inst. Of diphtheria, throughout the whole State there were 89 cases, with 1 death, as against the average of 57 cases, with 3 deaths. In the metropolitan area there were 52 cases, and no deaths, the average being 29 cases, with 2 deaths. Scarlet fever in the whole State fell from the average of 44 cases, with 1 death, to 5 cases, with no deaths. In the metropolitan area there were 28 cases, with no deaths, the average being 3 cases, with no deaths. Complaint was made that some councils delayed sending in reports from their health officers on outbreaks of disease.

West Australia.

Public Health Bill.—According to a report in the *West Australian*, the Colonial Secretary (Mr. Connolly) was waited upon recently by a deputation of members of the Perth Branch of the British Medical Association, and his attention was directed to certain objections in four of the clauses in the new Health Bill now before Parliament. Dr. Trethowan dealt with

clause 266, which enacts that "any death resulting either directly or indirectly from any surgical operation should be forthwith reported to the nearest magistrate, who would inquire into the circumstances and determine whether an inquest was necessary." That clause, he held, was not conducive to public benefit. Members of the medical profession had to undergo five years' training before they were allowed to practise, and they thought that after they had obtained their diplomas they were entitled to exercise their own judgment or not. That judgment would certainly be prejudiced if they were bound to consider that if an operation was not successful they might have to face a coroner's court or a magisterial inquiry. Many cases were in a desperate condition. If left alone the patient would die, and perhaps in 80 or 90 cases out of 100 an operation would be unsuccessful, but if by operating they could save 10 out of 100 of otherwise hopeless cases, they thought it would be the proper thing to do. Under the proposed clause he did not think the patient would get the best judgment, because the doctor would fear being penalised if the operation which he thought was necessary was not successful. In any case, how was a magistrate to judge anything of the medical aspect of the case? And, even if he called in a medical expert, the latter would not after death be able to judge how the case presented itself to the practitioner when he was considering whether he should operate. Even supposing that an error of judgment was committed by the operator, they did not think that the lay court was the proper tribunal to inquire into a case, and perhaps subject the profession to a great deal of annoyance. In instances of malpractice the public had already a means of redress through the law, but under the proposed clause a case may have been most skillfully treated, and because the patient died the doctor would be liable to be hauled up before a magistrate. The clause was not workable, and would only prove harassing. Dr. Saw drew the Minister's attention to clauses 196 and 197, the former of which required a medical practitioner to report to the local authority the case of any patient suffering from tuberculosis, syphilis, or any other infectious or contagious disease. The last two words, he contended, greatly widened the scope of the bill, because there were certain diseases that were regarded as contagious but not infectious, and would necessitate the reporting of ringworm and gonorrhoea, for instance. He did not think a sufferer from syphilis was in the least degree likely to convey infection in the course of his employment. He saw no practical utility in the section, but thought it would be positively harmful. If patients were to have their ailments reported to the authorities and thereby lose their employment they would be driven to chemists and pestilential quacks. In the case of tuberculosis, it was a disease which extended over many years, and developed gradually, and if he thought that a man was going to lose his employment a doctor was not likely to report the case. The succeeding clause prohibited persons affected with those infectious or contagious diseases, or living in a house in which any person was so suffering, from being employed "in the manufacture, manipulation, preparation, handling, storage, or sale of food or drugs. That was a very wide definition, and embraced the greater portion of the community. The absurdity of the clause was that if anybody in his house was unfortunate enough to contract tuberculosis, his cook would not be able to prepare his dinner or the maid to bring it to table. He maintained that diseases like that which extended over a long period, and were only slightly infectious, should be in a different cate-

gory to highly infectious diseases like smallpox. If the State was going to adopt those clauses, and prevent the employment of persons so affected, was it going to the logical conclusion to segregate them, and support them? The public cried out against vaccination, which most of them, as doctors, considered beneficial, and entailed no very great hardship, but the sections he had referred to would inflict incalculable hardship on patients and their friends. Dr. Stewart, speaking of clause 239, which required a death in any case of puerperal fever to be reported to the nearest magistrate, said that the clause was unnecessary and impracticable, because medical men were sufficiently trained to know when any blame was attachable to anybody. Another member of the deputation, dealing with clause 196, said it would require medical men to betray the secrets told them by patients, which he, for one, would not do. A patient had every right to go to a doctor, and be able to tell him his medical troubles in confidence. If doctors were compelled to report cases of venereal diseases the patients would be driven to quacks, and the result would be a serious spread of the maladies. The Colonial Secretary, in reply, said that he would give consideration to their representations, and he would propose amendments to some of the clauses. He still maintained that section 196 was a good portion of the bill, and he thought that Dr. Saw was quoting extreme cases. Although the clause might be amended, he did not agree that it should be struck out. He considered it a fair contention that doctors should not be asked to disclose the secrets of their patients, and he would put that view before the House. Perhaps they might put the onus on the patient, and provide a penalty for any diseased person working in the preparation of food. Although certain diseases might not be very infectious, there was no guarantee that the patients would use the necessary precautions, and in that matter the authorities could not be too careful. He did not see that if they put a man out of employment they would be doing wrong, if, by their action, they would be preserving the health of the general community. He would endeavour to have clause 197 modified, and he would have section 239 inquired into and the remarks of the deputation considered. Clause 266 was inserted principally at the request of several medical practitioners in the metropolitan area. He was told that there were some members of the profession who took unnecessary risks, but he was rather persuaded that the clause was not quite workable. He would have inquiries made into the merits of the proposal.

Queensland.

Bubonic Plague.—Dr. Burnett Ham, Commissioner of Public Health, reports for the four weeks ending September 7th, 1907:—*Brisbane*.—No case of plague has occurred in Brisbane since July 26th, 1907. Plague in rodents (four weeks ending September 7th, 1907).—Rats destroyed 1657, mice 281; rats examined 1340, mice 264; rats infected 3. An infected rat was found on August 10th in the premises of a boot manufacturer in the centre of the city. The premises were disinfected and the whole block was carefully searched for rats. A decomposed rat found on the premises of a wholesale stationer, Queen-street, on August 14th, had suspicious plague-like organisms in the spleen. A guinea-pig inoculated from the spleen died, the microscopical examination revealing the presence of plague-bacilli. An infected rat was found on September 4th

in a Government store in the city. *Cairns*.—A fatal case of plague reported on September 4th occurred in Cairns. Patient, a woman 24 years of age, was employed as a laundrymaid at a hotel in town. Type, bubonic. Two infected rats were found under floor of laundry, and a number of dead rats have been found in same block at hotel. Post-mortem examination revealed the presence of *B. pestis*.

Sydney Metropolitan Combined Sanitary Districts.

ABSTRACT OF ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH (DR. W. G. ARMSTRONG) FOR THE YEAR 1906.

Population.—The mean population of the metropolis (Sydney and suburbs) for the year 1906 was 543,457 persons. This estimation includes only the population within municipal boundaries, and does not include the population of the shipping or islands in Port Jackson. In the city of Sydney there appears to have been some increase in population. A considerable activity in building operations continued throughout the year, and more houses were erected than compensated for the number of demolitions. The number of unoccupied dwellings, according to the assessment returns of the City Treasurer, diminished from 1079 in 1905 to 991 in 1906. The mean population of the year amounted to 112,336. Among the suburban municipalities the greatest relative increase of population appears to have occurred in Canterbury and the North Shore districts. In general terms the population of the fringes of the metropolis increased considerably, while that of the central districts was more nearly stationary.

Births.—During the year 1906, 13,984 were registered, or 215 more than in 1905. The birth rate for the year was 25·7 per 1,000 of the estimated mean population, while the rate for 1905 was 26·05 per 1000. The illegitimate births numbered 1457, or 10·4 per cent. of the total births.

Deaths.—The deaths of residents in the metropolitan municipalities registered during 1906 numbered 5326. The figure given does not include deaths in the Callan Park and Gladesville Hospitals for the Insane, numbering 156, nor the deaths of persons residing on the shipping or islands in the harbour. The number of deaths given above is 50 less than those recorded in 1905, in spite of the large accession to the population which has occurred meanwhile. The death rate indicated by the above figures is 9·81 per 1000 of the estimated mean population, and is the lowest ever recorded in Sydney. If the death rate for the metropolis already given—9·81 per 1000—be multiplied by 1·083, it becomes 10·62 per 1000 of the estimated population, and this last figure is to be regarded as the death rate for the metropolis for the year, plus the metropolitan share of deaths in the benevolent asylums and hospitals for the insane throughout the State of New South Wales. The usual variations in the death-rates of individual districts appear. The highest rates are those of Waterloo and Paddington, where 12·3 of every 1,000 inhabitants died. Next to these come Newtown, with 11·9 deaths per 1000; Balmain, with 11·3; Redfern, with 11·1; and Botany, with 11·06. On the other hand will be found the small rural municipality of Marsfield, with the lowest death rate of 5·1 per 1,000, while Bexley, with a rate of 6·06, Lane Cove with a rate of 6·1, and Ryde, with a rate of 6·2, are not

far behind it. All these districts are rural in their conditions, and one expects to find low death rates prevailing in them. The rate in the city of Sydney was 10.5 per 1000. That of Leichhardt (8.8 per 1000) is one of the lowest among those districts where more urban conditions prevail. The death rate from all causes in the State of New South Wales during 1906 was 9.89.

Infectious Diseases.—Scarlet Fever.—Scarlet fever was once more very prevalent; 1869 attacks were notified in the metropolis, which is a greater number than has been recorded in any year since 1903. The incidence on the population was equal to 3.44 attacks per 1000 persons. It was most prevalent in the months of July, August, September and October. The incidence of scarlet fever on the whole State of New South Wales during 1906 was 2.03 per 1000 of the population. Of special outbreaks of scarlet fever in the metropolis, the only one of importance took place in July and the beginning of August, and affected the boroughs of Leichhardt, Petersham, Ashfield and Marrickville. Some 80 persons were affected. The outbreak was confined to the customers of a dairyman residing and trading in Leichhardt, and supplying 680 dwellings with milk in the boroughs mentioned. There is no room for doubt that this outbreak of scarlet fever was distributed through the agency of the dairy. Even although there was at the time of the outbreak an unusual prevalence of scarlet fever in the district, the incidence of scarlet fever on the dwellings supplied by this particular dairyman during the period July 15th–August 18th was twenty times as great as on the rest of the borough. The type of scarlet fever in this outbreak appears to have been mild. There was one death, which brings the case fatality of the outbreak to 1.26 per cent., or about the average case fatality for scarlet fever experienced in Sydney during recent years. Twenty-two deaths from scarlet fever occurred, equal to a mortality rate of .04 per 1000 of the population. All but two of the deaths occurred among children of under 10 years. One death was that of a woman between 25 and 30 years of age. Case fatality equalled 1.17 per cent. of the notified cases, and was slightly lower than that of last year. Seventeen persons were notified as suffering from both scarlet fever and diphtheria.

Diphtheria.—The number of attacks of diphtheria notified during the year was 659, or fewer than in any year since 1902. The attack rate from the metropolis was 1.21 per 1000 persons living. The incidence of diphtheria on the whole of New South Wales was .08 per 1000 living. Thirty-two deaths occurred, or 10 less than in 1905. The corresponding death-rate is .05 per 1000 of the population, which is, with two exceptions (1899 and 1900), the lowest experienced in Sydney. Again this year, as in 1905, the deaths were equal in the two sexes. None of the attacks were fatal at ages of over 15 years, but five deaths occurred at under 1 year of age. Case fatality was equal to 4.8 per cent. of notified cases, and was the lowest recorded in Sydney since the inception of notification. The type of diphtheria in 1906 was exceptionally mild.

Typhoid Fever.—The notified attacks of typhoid fever in the metropolis were 485, which yielded an attack rate of .89 per 1000. The number of attacks is less than that recorded in any year since notification began, being 76 less than the number recorded in 1905, hitherto the lowest year. No localised epidemics of any magnitude occurred, nor were any attacks traceable to the consumption of articles of food. The attack rate from typhoid fever for the whole of New

South Wales was 1.51 per 1000 living. As regards incidence on age and sex, there was little divergence from the previously observed behaviour of typhoid fever. The period of life most liable to attack was, in males, the 10–15 year period, and, in females, the 20–25 year period. No infants under 12 months were attacked, but 16 persons of age 55 and upwards suffered attacks. The attack rate in the city of Sydney (.66) was below that for the whole metropolis (.89). Of 19 of the 441 dwellings in which cases occurred, it was stated by the inmates that attacks of typhoid fever had occurred in them in previous years. In 3 of these the previous case was in 1905, in 5 the previous typhoid was in 1904, in 1 the previous case was in 1903, in 3 previous typhoid occurred in 1902, and in 7 dwellings previous cases of typhoid fever were said to have occurred before 1902. Sanitary condition of typhoid houses.—451 of the attacks of typhoid fever were investigated and reported on. In 119 instances the dwellings were provided with water-closets connected with the public sewers; in 119, pail-closets were used; and in one case there was a cesspit. 60 deaths occurred from typhoid fever in the metropolis, or 2 more than in 1905. The mortality rate indicated is .11 per 1000 of the population and is the same as that for 1905. The mortality rate for typhoid fever for the whole of New South Wales for the same year was .18 per 1000. Only 2 deaths occurred at ages under 5 years. In 12 of the metropolitan municipalities no deaths occurred from typhoid. The highest death rates were in Ryde (.54) and Botany (.52). Case fatality.—Of the notified attacks, 12.37 per cent. ended fatally. This is the highest case fatality recorded since notification began, the next highest having been 11.08 per cent. in 1899.

Bubonic Plague.—Twenty persons were attacked with plague in the metropolis during 1906, the outbreak forming the sixth in sequence since first the disease appeared in Sydney. Of those attacked 8 died. The attacks were more evenly distributed in time throughout the year than has hitherto been the case in Sydney outbreaks. Another unusual phenomenon was that the brunt of the outbreak was borne by the wintry months of June and July. The rat-catching staffs of the State Department of Public Health and the City Council continued in existence throughout the year. The former confined its operation to the line of the wharves, from the head of Darling Harbour to Circular Quay. The City Council's staff visited premises throughout the city wherever there was reason for believing that rats were numerous, and particularly if any mortality among them had been reported. But the chief resort of this staff was the streets and blocks of buildings on the Darling Harbour slope of the city. The object of the existence of both staffs was not primarily the destruction of rats, but the collection of information as to the existence of disease among rodents, and all rats and mice taken by them were labelled with the address of the premises from which they were taken and forwarded to the bacteriological laboratory of the State Department of Public Health for examination. The total number of rodents taken by these staffs and examined in the laboratory was 17,965 rats and 11,478 mice. Of these numbers 135 rats and 39 mice were found to be plague-infected. Some considerable progress was made by the Harbour Trust during the year in reconstructing the face of the Darling Harbour wharves so as to diminish their capacity for harbouring rats. Much still remains to be done in this direction, however. The wharves, still in great part constructed of dry rubble, heaped together and faced with undressed wooden piles, form for the

rat tribe an ideal harbourage and breeding-ground, in which plague smoulders from year to year, to break out and spread among the rats of the city towards the end of each summer. Until the whole of the wharves of Darling Harbour and the rest of the busy sea-front of Sydney have been so reconstructed as to afford no safe refuge to the rat-tribe there appears to be little hope of effectively clearing Sydney of plague.

Tuberculosis.—The deaths from all forms of tuberculosis registered in the metropolis during 1906 numbered 494, of which 36 were due to tubercular meningitis, 394 to phthisis, and 64 to other tubercular diseases. To these figures should be added 81 deaths from phthisis in the State benevolent asylums of persons who were formerly residents of the metropolis, 17 deaths from the same cause of the same class of persons in the hospitals for the insane at Callan Park, Gladesville, Rydalmere, Parramatta, Newcastle and Kenmore, and 6 deaths in the Queen Victoria Sanatoria at Thirlmere and Wentworth Falls. The further experience of the working of the by-laws for the compulsory notification of phthisis which another year has given has entirely confirmed the statements then put forward. In no single case has any friction arisen between the City Council and the medical profession on the subject of notification. No cases have come to light in which any injury or hardship appeared to have been inflicted on phthisical persons through the operation of the by-laws. The number of notifications of pulmonary consumption sent to the City Council during 1906 was 168. As soon as possible after the receipt of the notification form the patient's residence was visited, and verbal and printed instructions were given to the patient or his friends, conveying information as to the best means of avoiding the transmission of infection, and generally as to the precautions which ought to be taken. Subsequently, on the death of the patient, or on his removal for any cause from the dwelling occupied by him, the latter was disinfected by the City Council's trained staff. The number of houses so disinfected in the city during 1906 for phthisis was 128, 80 of which were disinfected after deaths from phthisis, and 48 after the removal from them of living consumptives. Investigation into deaths from phthisis in the metropolis.—This inquiry has been continued during the year. The deaths investigated numbered 256. Occupation.—Forty-four of the persons whose deaths were investigated were housewives, 13 were females who assisted their parents or other relatives in household duties, 15 were clerks, 6 stonemasons, 9 labourers, 9 domestic servants, 6 shop assistants, 8 sewer construction labourers, 6 dressmakers, 4 blacksmiths, 4 laundry employees, 3 school teachers, 4 bricklayers, 3 compositors, 3 tailors, 3 employees in boot factory, 4 tailoresses, 26 had no occupations. The remaining 112 persons were distributed among 64 different occupations. Duration of illness.—The average duration of illness in the cases investigated was 26 months and 4 days. The longest illness recorded was 20 years and the shortest 2 weeks. Where illness was contracted.—In 219 cases the illness was said to have been contracted in Sydney (i.e., the metropolis); in 13 cases it was contracted in New South Wales outside the metropolis; in 4 cases the illness began in some other Australasian State; and in 11 cases the illness began outside Australia. In the remaining 8 cases this information could not be obtained. It is noteworthy that of the cases investigated (omitting those 8 in which the information under this head was unobtainable) 94 per cent. contracted their illness in New South Wales, and only 6 per cent. were imported cases of phthisis. Evidence of

possible source of infection.—In 76 instances out of the 248 in which information as to the previous history of the deceased was obtainable, a probable source of infection was traced by the inquiry. Association with a consumptive relative, or some other occupant of the same dwelling at a period shortly before the beginning of the illness, was found to have occurred in 51 cases, and in the other 25 there had been association with consumptive employees. Proportion of inmates to rooms.—Presumptive evidence of overcrowding was discovered in two of the dwellings in which deaths from phthisis had occurred. Of the 256 cases investigated, inquiry elicited that death had occurred in the house in which the illness had first begun in 116 cases. The number of rooms in these 116 dwellings was 657, or an average of 5.6 rooms per dwelling. The number of occupants was 622, so that the proportion of inhabitants per room was a little less than 1 (accurately .947).

Infantile Mortality.—The deaths of children under one year in the metropolis during 1906 numbered 1194, which was 40 less than in 1905, and was equal to an infantile mortality rate of 85 per 1000 births, the lowest on record in Sydney. The rate for the whole of New South Wales during the same year was 75 per 1000 births. The proportion borne by the infantile deaths in the metropolis to the total deaths at all ages was 22.4 per cent., compared with 22.9 per cent. in 1905. The chief cause of infantile deaths was, as usual, that classed under the heading of diarrhoeal diseases (diarrhoea, dysentery, gastro-intestinal catarrh, enteritis, infantile cholera). This group was responsible for about one-third of the total infantile deaths. The actual number of such deaths during 1906 was 406, of which 23 were certified as due to diarrhoea, and 383 to enteritis. In the city of Sydney the infantile mortality from diarrhoeal diseases was lower in 1906 than that of the whole metropolis, and was only 24 per 1000 births, although the infantile mortality from all causes in the city was higher than that in the whole metropolis. Next to diarrhoeal diseases, the most important causes of infantile mortality in 1906 were the following:—Premature birth, 246; atrophy, marasmus, 123; congenital defects, 86; pneumonia, 62; debility at birth, 48; convulsions, 36; syphilis, 33; bronchitis, 33. When these figures are compared with the corresponding ones for 1905, it appears that there are marked decreases under the headings of congenital defects (110 deaths in 1905), pneumonia (75 deaths in 1905), debility at birth (56 in 1905), and bronchitis (59 in 1905). The causes of the low infantile mortality.—The low diarrhoeal mortality of infants experienced in the city of Sydney during the years 1905-1906, compared with that in the whole metropolis, is very interesting, owing to the special measures which have been taken in the city to combat infantile diarrhoea during the past three years, of which accounts were given in my annual reports for 1904 and 1905. The City Council's female sanitary inspector paid no less than 1240 visits to the parents of newly-born children in the poorer districts of the city during 1906, and was able to disseminate a great deal of sound instruction on the feeding and rearing of infants, as well as to collect some useful information. The children on whose behalf the visits were paid were all under three months old, the average age being between one and two months. The number of children found to be entirely breast-fed was 977; 210 were partially breast-fed, their natural food being supplemented by such substances as condensed milk, cow's milk, biscuits, and various artificial foods (biscuits are a very favourite article of infant's diet in Sydney, and no less than 85 of the children visited were found

to be partially fed on them, in conjunction with breast-feeding). Fresh cow's milk alone was used in 21 cases, condensed milk alone in 13 cases. In 19 cases, artificial foods were used either alone or in association with fresh cow's milk or condensed milk.

Adulteration of Food.—Twenty-six municipalities in the metropolitan combined districts took some action during the year 1906 in the direction of suppressing the adulteration of food. The number of samples taken for analysis also showed a falling off, for while in 1905, 2061 samples were purchased by local authorities and submitted to the State Department of Public Health for analysis, in 1906 these samples only numbered 1700. Under these circumstances, it is somewhat surprising to observe that the proportion of adulteration found in 1906 was slightly less than in the previous year, since only 244 samples out of 1700 analysed, equal to 14 per cent., were found to have been sophisticated, while in 1905, 16 per cent. of the samples submitted failed to satisfy the analyst. The class of food, for which prosecutions for adulteration were most frequently undertaken during 1906, next to milk, was that which comes under the head of sauces. Out of 196 samples of these condiments submitted to analysis, no less than 63, or 32 per cent., were adulterated by the addition of salicylic acid, boric acid, or other of the prohibited preservatives. The adulteration of milk was distinctly less in 1906 than in any previous year. Of 1074 samples taken for analysis, 102, or 9.5 per cent., were adulterated mainly by the addition of water. For some years past I have been able to point out with satisfaction the gradual disappearance of preservatives from the milk supplies of the metropolis. This, however, is the first annual report in which it could truthfully be stated that in no single instance was any chemical preservative found in the samples of milk taken for analysis. The use of chemical preservatives by the milk trade of Sydney has ceased to exist.

Dairies.—The registered dairies within the metropolis numbered 402, showing an increase of seven on the figure for 1905. In the extra metropolitan municipalities, 50 dairies were registered in 1906. All dairies registered were inspected at least once during the year. Their general condition continues to improve year by year, under the pressure of increasing stringency in the execution of the "Dairies Supervision Act." Infectious disease on dairy premises.—During 1906, 23 attacks of infectious disease were notified upon 18 dairy or milk vendors' premises, including 10 attacks of scarlet fever, 6 of diphtheria, and 7 of typhoid fever. In each case, the casual precautions were stringently enforced to guard against the spread of infection through the vehicle of the milk. Dairy cattle.—6650 cattle were inspected in the combined districts, of which 6241 were in the metropolitan municipalities. Milk vendors.—Besides the dairies, 1596 milk vendors' premises were inspected during the year, and reports on the results of inspection were forwarded to the local authorities concerned. Among so large a number visited, a great variety of conditions was inevitable, but in general, their condition from a sanitary point of view was found to be improved upon that of previous years.

Restaurants.—Particular attention has been paid during the year to the condition of the restaurants, public dining-rooms, and other eating-houses in the city of Sydney. At the close of the year there were 269 of these places in the city (exclusive of hotels), and it cannot be stated that the condition of all of them was entirely satisfactory. They are, on the whole, very much improved as regards cleanliness, and some are improved structurally in comparison with their condi-

tion of a few years ago; but in some there is still room for a good deal of betterment. The fact is that, for bringing business of this class into such a state of order and cleanly management as would make them thoroughly satisfactory as one of the sources of public food supply, more legal powers are necessary.

Noxious Trades.—There was a considerable increase in the numbers of this class of businesses in the metropolis. The number of traders licensed was 275, compared with 247 in 1905. The administration of the Act by the local authorities of my district was on the whole efficient. In only two instances was it found necessary to appeal to the Board of Health to carry into effect prosecutions which it was the duty of the local authority to have undertaken.

OBITUARY.

W. E. YOUNG, L. et L. Mid., R.C.P., et R.C.S. (Edin.), 1871, Ballarat, Victoria.

Dr. W. E. Young, medical officer of the Australian Mutual Provident Society, died on August 27th at his residence, Mair-street, Ballarat, Victoria, after a brief illness. Deceased, who was 56 years of age, was a native of the North of Ireland, and was educated at Queen's College, Belfast. He leaves a widow and two in the family.

ARTHUR GEDDES HENRY, M.B., M.Ch. (Syd.), 1888, Coast Hospital Sydney.

We regret to record the death of Dr. Arthur Henry, the superintendent of the Coast Hospital, who died there on September 17th from heart failure, supervening on influenza. Dr. Henry, who was 43 years of age, had been ill for about two months, his illness being the result of a severe attack of typhoid fever many years ago. For the past six years he had held the position of superintendent of the Coast Hospital, and previous to receiving this appointment he was medical officer in charge of the Parramatta, Rookwood, and Newington Asylums. He also at one time filled an important office at Callan Park Asylum. The late Dr. Henry leaves a widow and six children.

EULALIE DAWSON, M.B., B.S. (Adel.), Laura, South Australia.

We regret to record the death of Dr. Eulalie Dawson, which took place at the North Adelaide Private Hospital on September 5th. She was the daughter of Mr. R. T. Burnard, the head master of the Flinders-street Public School, and had a brilliant scholastic career. She proceeded to the University of Adelaide and took the medical course. She passed year after year with high honours, and in 1906 graduated M.B., B.S., and took first-class honours. Last March Dr. Burnard was married to Dr. Dean Dawson, who had also secured his degree in 1905. They went to live at Laura, but a few weeks ago an operation on Mrs. Dawson for a spinal trouble was performed, but, unfortunately, without benefit to the patient. Dr. Eulalie Dawson, who was only 23 years of age, was beloved by everyone who knew her, and general regret is expressed at her early death.

Dr. Joseph Lalor died at Richmond, Victoria, on September 2nd, aged 48. He was the only son of Mr. Peter Lalor, the prime mover in the Eureka Stockade trouble, and late Speaker of the Legislative Assembly. Deceased resided at Orange, N.S.W., for some time, but returned to Richmond in 1902.

A New High-Pressure Autoclave



THE following is a description of an autoclave I have had made for me by Fischer, of Adelaide:—

This autoclave consists of three parts:

1. An upper spherical sterilising chamber, surmounted by an automatic pressure gauge.
 2. A lower cylindrical steam generating apparatus.
 3. A supporting framework.
1. The spherical sterilising chamber, 19 inches in diameter, is made in two portions, which are riveted together. The door is rendered steam-tight by means of an accurately fitting bevelled edge. The steam from the cylindrical generating chamber below passes into the sphere above, and being under pressure thrusts the bevelled surfaces of the door and encircling rim into still closer apposition, so that the escape of steam is infinitesimal. While the chamber is being filled with dressings,

etc., the door is rolled on its edge out of the way within. Closure is effected by drawing the door into position and giving a quick turn of the wrist. There is ample room in the chamber for four small Schimmelbusch kettles. The pressure gauge on top automatically controls the supply of gas, so that when the steam reaches the pressure desired the supply of gas is regulated to keep the steam constantly at that pressure.

2. The lower cylindrical steam generating apparatus consists of a chamber with tap and funnel, into which two pints of boiling water are poured. A water gauge is shown on the right and a steam blow-off tap on the left side. A Bunsen burner stands on the shelf of the framework, which explains itself. Steam at 15 lb. pressure can be generated in less than 10 minutes and can be maintained automatically at this pressure for hours.

The advantages of this autoclave lie:

1. In the bevelled door which replaces the cumbersome and frequently defective screw-down lid of the cylindrical autoclave.
2. In the automatic gas regulating gauge, which renders constant supervision unnecessary.
3. In the rapidity with which, owing to the small quantity of water used, steam at high pressure is obtained.

H. SIMPSON NEWLAND,

M.B., F.R.C.S. (Eng.),

Assistant Surgeon Children's Hospital, Adelaide.

New Preparations.

We have received from Messrs. Burroughs, Wellcome & Co., numerous samples of their preparations, amongst them the following:—"Ernutin," a new product presenting the active therapeutic principle of ergot, for hypodermic or intra-muscular injection. It is issued in hermetically sealed phials, and being sterile is suitable for hypodermic or intra-muscular injection. When it is desired to obtain an immediate effect, as in post-partum hemorrhage, intra-muscular injection is to be preferred. As "Ernutin" is a very potent preparation its administration must be carefully guarded, and the dosage regulated accordingly. It is well to begin with 5 minims, and let any subsequent dose required depend upon the ascertained reaction of the patient.

"Quinine Acetyl-Salicylate."—This appears to possess important therapeutic advantages over quinine salicylate, in that it sets free acetyl-salicylic acid, which is not a gastric irritant like salicylic acid, but passes through the stomach unchanged, and manifests its full effect after solution in the alkaline contents of the intestine. The value of acetyl-salicylic acid ("Xaza") is now widely recognised. It produces the antiseptic, antipyretic, antirheumatic and analgesic effects of salicylic acid and its simple salts without the disadvantages of the latter. The therapeutic properties of acetyl-salicylic acid are markedly reinforced by combination with quinine, itself a powerful antiseptic, antiperiodic, and antipyretic. Quinine Acetyl-Salicylate, "Wellcome" brand, is of value in the treatment of influenza, catarrhal affections, gout, rheumatism, malaria, and other fevers, neuralgia, etc. Its rapid control of the febrile conditions associated with influenza and common cold may be conservatively described as not ordinary. It may be administered in doses of gr. 2 to gr. 5 (0.13 gm. to 0.3 gm.), taken with a little water after food. Issued in bottles of 1 oz.

We have also received samples of "Xaza" and Dovers powder, "Xaza" and phenacetin, and Xaza and xazaquin in "tabloid" form.

"Alaxa" is an aromatic liqueur of cascara sagrada. It is of agreeable flavour, and exerts a marked tonic effect upon the bowel. It assures a normal activity, and renders unnecessary the use of after-dinner pills or digestive aids. "Alaxa" is said to be suitable for use in the treatment of the constipation of pregnancy. It regulates the action of the bowel without producing irritation or griping or interfering with the gravid uterus. Each fluid drachm of "Alaxa" contains the equivalent of 24 minims of liquid extract of cascara sagrada B.P. The dose is, therefore, 1 to 2 fluid drachms, as may be required. Issued in bottles containing 4 fluid ounces.

"Tabloid" Compressed Sterilised Dressings.—In addition to the ordinary packings, "Tabloid" pleated compressed dressings are now issued sterilised. Busy practitioners will appreciate the convenience of these aseptic dressings, which are packed under sterile conditions in sterilised packets, and remain aseptic until the cover is removed. In country practice and for emergency work "Tabloid" compressed sterilised dressings are unquestionably of the greatest value. Their extreme compactness, portability and reliability render them most satisfactory for all purposes. The samples received include carbolised lint, absorbent cotton wool, bandages and sanitary towels.

"Soloid" Eosin-Azur (for Giemsa staining with one solution).—Recent work by Schaudinn, Metchnikoff and others has directed attention to the spirochæte pallida as the probable causal organism of syphilis. Since cultures of this spirochæte have not yet been obtained by laboratory methods, its identification has largely rested upon the suitability of the staining reagents employed. Prominence has been given to Giemsa's method, which has already been recommended for staining malarial blood. The method requires a mixture of aqueous solutions of eosin and of pure methylene azul. The necessity of preparing two solutions is a disadvantage which has been overcome by the use of "Soloid" Eosin-Azur for Giemsa staining with one solution. To prepare the solution, dissolve one "soloid" product in 5 cc. of pure methyl alcohol. A few drops are run on to the film and allowed to remain one or two minutes. Then double the volume of distilled water is dropped on to the film. After another five minutes' staining the film may be washed in distilled water, dried in air, and mounted in xylol balsam. Nuclear and malarial bodies stain an intense red or violet colour, while the spirochæte pallida will be stained a paler reddish purple "Soloid" Eosin-Azur, 0.015 gm. (gr. 0.231) is issued in tubes of six.

HOSPITAL INTELLIGENCE.

Women's Hospital, Melbourne.—The 50th annual report and balance-sheet prepared by the committee of management of the Women's Hospital was submitted to the annual meeting of contributors and governors last month. The report showed that the number of patients admitted to the midwifery department was 1524, and the number of infants born in the institution was 1223. The admissions to the infirmary department numbered 519. The number of adult patients in each department was exactly the same as for the previous year, but the births of infants show an increase of 39. The subject of the protection of infant life had been much before the public during the past few months. At the Women's Hospital mothers and

infants receive the best care and attention, and, as far as possible, the committee tried to arrange that every mother requiring a home had some shelter to go to when she left. Dr. Norris, chairman of the Board of Health, in his report stated that the mortality of the infants of single women for the past five years averaged 241 per 1000. If the same care with which those infants born in the institution began life could be continued after they left, it would be reasonable to suppose that the death-rate among them would be largely diminished, and that most of them would grow up healthy and useful members of the community. The number of new out-patients for the year was 1138. The total income to maintenance was £6843 4s 5d, including £475 from the Felton Bequest committee and £250 from the estate of the late Charles Campbell. The ordinary receipts were £6078 4s 5d, and showed a falling off of £227. The cost per bed had fallen from £99 16s 2d in 1901-1902 to £61 15s in 1906-1907. During the past year the committee had initiated an extern midwifery department for the relief of poor women in their own homes. This was being largely availed of, and seemed to be much appreciated. The committee had determined to proceed with the important work of rebuilding the hospital by beginning to construct the new out-patients' department and nurses' quarters. The estimated cost of the buildings was £10,000. In order to help to provide funds for this portion of the work, the Lady Mayoress, Mrs. Henry Weedon, had issued an appeal to the women of the State, inviting each to contribute a shilling towards the building fund, and if they would respond to the appeal more than sufficient for the purpose would be realised. Dr. M. U. O'Sullivan, chairman of the hon. medical staff, reported that the work of the hospital during the past year had continued along the lines of progress which had marked its history from the beginning. The establishment of an extern maternity department, thereby bringing comfort and relief to the homes of many poor women, and the remarkable reduction of the cost of administration, had contributed very largely to the success of the year, and bore eloquent testimony to the committee's faithful and philanthropic work. For many years past hospitals maintained by public subscription and endowed by the Government for the benefit of the sick poor had been taken advantage of by persons whose circumstances in life did not warrant their inclusion amongst those for whom such institutions were intended. The sick poor were thus often kept waiting, and denied their just rights. Rebuilding was urgently needed, and it was hoped that the appeal to the public would be generously met. The balance-sheet showed a credit balance on June 30th of £1941 10s 9d. Dr. Jamieson, in seconding the adoption of the reports and balance-sheet, moved by R. G. Kent, referred to the good work done during the year, and dwelt on the necessity of rebuilding the hospital. He spoke from an experience of many years, and emphasised the generally expressed opinion that the buildings were not consonant with the important work accomplished in them. The Mayor congratulated the committee on the hospital's jubilee, and spoke in the most laudatory terms of the work done by the hon. medical staff. The work of the hon. medical staff could not be over-estimated, and one incident which made it plain to him that their work was a labour of love was comprised in a cheque for £150 which the hon. medical staff had subscribed and sent to his wife as a donation towards the movement for rebuilding. The honorary surgeons who retired by effluxion of time have all been re-elected as follows:—Honorary indoor surgeons: Dr. M. U. O'Sullivan, Dr.

F. W. W. Morton, Dr. G. Rothwell Adam, Dr. Felix Meyer. Honorary assistant surgeons: Dr. Helen Sexton, Dr. R. H. Fetherston, Dr. Geo. Horne, Dr. Geo. Cuscaden. Honorary midwifery surgeons: Dr. T. Taylor Downie, Dr. R. H. Morrison, Dr. A. Norman McArthur, Dr. H. Cairns Lloyd. *Treatment of Septic Cases.*—A deputation from the Women's Political and Social Crusade waited upon the management of the Women's Hospital to ascertain whether any provision had been made in the plans of the proposed new buildings for the accommodation of patients suffering from septicæmia contracted outside the hospital. The President assured the deputation that a septic ward was included in the complete scheme for an up-to-date hospital which the committee had adopted, a part of which was even now under course of erection. As soon as funds were available a septic block would be provided. It was to be hoped the crusade would do its utmost to see that the necessary funds were forthcoming, for the £93 already collected by them would not go very far. The management had recently purchased two cottages adjoining the hospital as a site for a septic ward, but the time when the building would be put up was a question of funds. Dr. Cuscaden said that the honorary staff were very anxious that septic cases should be treated in the institution. The public would be glad to know, however, that the management was doing all it could to meet the emergency.

Sydney Hospital.—His Excellency Sir Harry Rawson on September 5th officially opened the south wing of the Sydney Hospital, which has been completed and furnished throughout. The new wing will take the place of the old building which was demolished some time ago to make room for the more up-to-date structure. The new building is five stories in height, finished with a flat roof, on top of which is erected the solarium, the remainder of the roof being used for exercising the patients. The total length of the building is about 160 feet, the extreme width 83 feet, and the width of the ward proper 43 feet. The ground floor is used for skiagraph and electrical departments, also for general stores. On the first floor the ward is 108 feet 6 inches in length, and 29 feet in width, and will contain 22 beds, which will allow for each patient about 145 superficial feet of floor space and about 2000 cubic feet of air space. There are the usual ward scullery and larder attached, together with a patients' dining-room and friends' waiting-room, with a splendid bathroom, also lavatory and sanitary arrangements. In connection with the wards, there is a laboratory provided. There are also two private wards on this floor, with bathroom and lavatory accommodation. The second floor is a repetition of the first, with the exception of there being no private wards, but living accommodation is provided for two resident medical officers. The third floor is similar to the first. The top floor will be specially used for surgical cases, and attached to the ward there is an operating theatre, fitted in the latest and most up-to-date style, and containing sterilising room, anæsthetic room, and surgeons' room, with bathroom adjoining. All wards are provided with clothes' cupboards and linen and blanket rooms. To each ward is attached a balcony 10 feet wide, extending along the whole length of the north side, and continued on two floors to connect with balconies of one of the existing pavilions. Fire-escape stairs are provided from each of the balconies, while the main staircase is isolated from the ward with an elevator running in between. The construction of the building is, as far as possible, of fire-resisting materials. The walls are built of brick, with a 3 in. cavity between,

the external face being cemented and the internal plastered with granite plaster and curved tile skirtings. The floors are constructed of concrete on expanded metal supported by steel girders, and cased with concrete and expanded metal finished in cement. On top of the concrete are laid narrow hardwood boards, paraffined and beeswaxed. The ceilings are all finished in cement and plastered and coved at all angles. The floors and ceilings of bathrooms and lavatories are lined with tiles, and the walls of ward sculleries are also tiled. The operating theatre and sterilising-room walls are lined with tiles, and the floors laid with vitrified tiles on top of the concrete. The lighting is both by gas and electric power. The main staircase is constructed entirely of stone, and also the landings, with an iron guard railing. The escape stairs are of iron. The balconies are constructed with iron columns and concrete floors on expanded metal. The glazing throughout is of plate-glass. The total cost of the structure was about £20,000. The work has been carried out by Mr. William Noller, contractor, under the supervision of and from designs prepared by Messrs. Robertson & Marks, hon. architects.

Melbourne Hospital.—The *Melbourne Age* states:—"The committee of management of the Melbourne Hospital has been notified that the trustees of the estate of the late Mr. Edward Wilson have decided to offer the sum of £100,000 for the purpose of assisting in the rebuilding of the institution. The conditions upon which the offer is made are that the hospital shall be rebuilt upon the present site unless a new site be selected within six months. It will also be proposed by the trustees of the estate that the contract for rebuilding the hospital shall be let within eighteen months and completed by 1912. The late Mr. Edward Wilson, who was the senior partner of the *Argus* proprietary, left a very large fortune, the bulk of which was devoted to charity. The magnificent amount of money now to be offered to the Melbourne Hospital consists of funds which have accumulated since 1876, the year in which Mr. Wilson died. The question of rebuilding the Melbourne Hospital has been a burning one for years. It is generally recognised that the old institution should be replaced by one better adapted to modern requirements. The plans of a new and scientifically constructed hospital have been prepared, but nothing has been decided upon concerning their adoption. The matter of a change of site has been frequently discussed, and this is now before the committee. The site of the horse and pig market, Sydney-road, is favoured by some of the committee, while others consider the present site the most suitable.

Royal Prince Alfred Hospital Sydney.—At a meeting of the board of directors of the Royal Prince Alfred Hospital held last month a contract was accepted, subject to certain deductions, for the reforming of the roadways and grounds in front of the new pavilions, etc. Mr. W. Trotter wrote, resigning his position as a member of the board, owing to his early departure for Europe for a lengthy term, and his resignation was accepted with regret. It was unanimously resolved that Mr. R. M. M'C. Anderson be appointed to the vacant position. Attention was drawn to the public controversy which had been taking place as to the proposal that the hospital should take over the general beds from the Coast Hospital, and it was decided that a letter on the subject be written to the Public Service Board.

Victoria Convalescent Home, Hobart.—The annual meeting of the subscribers was held last month. The annual report stated that 135 patients had been received at the Home for periods varying from

one to several weeks, with an aggregate of 469 weeks. The committee was under a deep obligation to members of the Ministering Children's League, and others, for financial support during the year. The Home had experienced a great loss through the decease of Mrs. C. E. Davies, who had been a member of the Executive Committee from the inception of the Home, and had at all times been ready and willing to assist in furthering its interests. To enable the matron to devote the whole of her time to the patients, many of whom were cripples, extra help had been engaged, which, of course, had involved increased expenditure. The committee considered, however, that the extra outlay had been amply justified. The existing dining-room for male patients was unsuitable, and the committee appealed to the men of Hobart to remedy the defect by erecting a new dining-hall. The receipts, which included fees, £202 4s, amounted to £348 12s 7d. Against this stood disbursements totalling £263 5s 10d, the principal items being salaries and wages £123 14s 8d, firing and provisions £98 18s 11d. A balance of £85 6s 9d was transferred to the capital account, which was thus brought up to £723 3s 11d.

Royal Alexandra Hospital for Children, Sydney.—At the monthly meeting of the board of management of the Royal Alexandra Hospital for Children the expenditure for the month amounted to £745 8s 2d. The honorary treasurer's report stated that the debtor balance at the bank amounted to £421 18s 11d. The sum of £400 was received from the Hospital Saturday Fund. Patients' payments amounted to £55 0s 6d. The house committee's report showed that during the month there had been admitted 107, discharged 98, operations 134, deaths 9, remaining in hospital 71, and that at the out-patients' department 888 new cases and 2558 old cases were treated. Satisfactory reports were received from the monthly visitors. The board has found it necessary to make a rule that no entertainments advertised as being for the benefit of the hospital will be recognised unless the written sanction of the board be received.

Royal Hospital for Women, Sydney.—At the monthly meeting of the board of directors last month reports showed that at the Royal Hospital for Women 126 women had been attended, and 55 children born in the obstetric department. The district nurses had paid visits to 18 different homes of the poor where children were born. At the out-door infants' department 105 children had been attended, and at the out-door department 190 women, who also received medicine. At the Asylum and Hospital for Infants, Thomas-street, 113 women and 107 children were cared for.

Dunwich Asylum, Queensland.—The annual report of the medical superintendent of the Dunwich Asylum for 1906 states that the admissions and readmissions during the year were 381, as against 401 in 1905, or 20 less; that the discharges, dismissals, etc., were 159, or 18 more than in 1905; and that the deaths were 141, or 18 less than in the previous year. The total number of inmates resident during the year was 1573—namely, 1346 males and 227 females. The total ordinary expenditure for the year was £17,100 3s 8d, or, approximately, £14 3s 10d per head per annum, or 5s 5½d per week, or 9½d per day. Owing to the fact that the sum of £489 10s 7d was collected by the curator and £294 12s 10d was realised by the sale of stores, pigs, etc., the net expenditure was £16,316 0s 3d, or £13 10s 9d per head per annum, or 5s 2½d per week, or 8½d per day. The average weekly number in the asylum was 1205. It was found necessary to transfer

34 inmates (28 males and 6 females) to the Reception House in Brisbane as suffering from insanity. Some of these were insane when admitted; others had become insane whilst here, and had to be removed for their own safety and for the welfare of the other inmates. During the past year an effort has been made to properly classify the various cases of illness. The consumptives are still kept apart from the other inmates, in tents, under open-air treatment, and the most pronounced cases are sent to the Diamantina Hospital when accommodation is available there. Dr. Lockhart Gibson, the honorary oculist, visited the institution during the year, and has treated many of the inmates. Considerable improvements to the buildings have already been effected, and are being steadily proceeded with. Several new buildings are shortly to be erected, including a new ward at the female division, storekeeper's cottage, new bathroom (with hot and cold water laid on), and steam laundry. One of the wards is to be enlarged and converted into a new and commodious store, and another ward is to be altered and utilised as new offices and dispensary. The sanitary arrangements have not been neglected, and still further improvement in this direction is receiving attention.

Dubbo Hospital, N.S.W.—His Excellency the State Governor laid the foundation-stone of the Dubbo District Hospital on August 6th. This building will be from plans prepared in the Government Architect's Department, and will be erected under the supervision of the district Government inspectors. A contract has been let for £3400, but this does not include the whole of the design. At present it is intended to erect all blocks except the female ward. The central, or administrative block, will include the matron's quarters, the board and medical rooms, dispensary, day room for the patients, and a large linen room. To the right of the administrative block will be erected the male ward, which will contain 16 beds, and be fitted with every convenience, and wide verandahs on all sides, being splendidly ventilated. On the opposite side of the administrative block there will be the female ward, but this will not be included in the present contract. At the rear of the administrative block the operating theatre will be situated. This will include the sterilising and anæsthetic rooms, as well as a fully equipped operating theatre. There is a lobby from the main corridor, which disconnects the operating rooms, and keeps them private. On the opposite side of the operating block from the main corridor will be found a spacious dining-room for the nurses. At the rear of these blocks, and reached by the same corridor, is the kitchen block, which includes a very fine kitchen, scullery, store, laundry and servants' accommodation. The administrative block, when the female ward has been erected, will form the centre feature of the building. It will be two storeys in height. The first floor will be devoted to nurses' quarters, and will contain five nurses' bedrooms, bathroom, etc. The female ward, when erected, will form the left wing, and will contain 10 beds and a private ward. The building throughout will be constructed in brickwork, with stone dressings in front.

Jubilee Sanatorium, Dalby, Queensland.—Dr. A. Stewart, medical officer, reports for the year ending June 30th, 1907:—Number of patients remaining June 30th, 1906, 27; admitted since, 87; number discharged during year, 86; deaths, 1; remaining at end of year, 27. The daily average of patients for the year was 28.2. Of the 87 cases, 11 were found to be non-tuberculous. All the doubtful cases gave a negative reaction to old tuberculin. The remaining tuberculous

cases are tabulated as follows, and in this the classification of Turban is now adopted:—Class I.—Cured, 15; improved, 1; i.s.q., 2; death, nil; total, 18. Class II.—Cured, 3; improved, 14; i.s.q., 16; death, 1; total, 34. Class III.—Cured, 4; improved, 7; i.s.q., 13; death, nil; total, 24. The word cured here means that all the active signs are in abeyance, that there is a cessation of cough and expectoration, and that the patient is able to earn his living. The word arrested is not used for such cases, because in some institutions in England patients are discharged as arrested who still spit, and the expectoration contains tubercle bacilli. In eight of the improved cases above recorded, though the signs were quiescent, they still coughed and spat a little on rising in the morning, but were able to do a hard days work. In German sanatoria these cases would be discharged as "erwerbsfähig," and it is to be regretted that this expressive word could not be universally adopted, so as to include cured, arrested, and quiescent cases. The cured cases had an average residence of 121·9 days, and their average increase in weight was 16·8 lb., the highest weight gained being 38 lb., and the lowest 3½ lb. The average residence in the improved cases was 138·9 days, and their average increase in weight 14·9 lb. During the year extensive experiments were made in reference to body temperatures, when the results of Dr. Burton Fanning could not be verified. In summer the rectal temperatures exceeded the records in the mouth by an average of 5° Fahr., the minimum being 2° Fahr., and the maximum 8° Fahr.; and in winter, though every precaution was taken, the discrepancies were so great that temperatures taken in the mouth were abandoned altogether. Every endeavour has been taken to keep in touch with the cured cases after their discharge. In tracing our cases we have been rewarded for the trouble taken, as the results, on the whole, are satisfactory. Amount received from paying patients, £350 5s 11d; the total expenditure amounted to £1521 17s 6d. Average number of patients for period of 12 months, 28·2; cost per head for period, £41 10s 10d. During the year a new dining-room has been built for the nurses. The vegetable garden has kept us fairly well supplied; we have had half a ton of English potatoes, between two and three tons of pumpkins, five or six tons of oatmeal hay, one and a-half acres of millet and barley for green feed for the dairy cows, and a very plentiful supply of grapes.

Broken Hill Hospital.—During the year 1906 724 patients were treated in the institution, of whom 194 were cases of violence. Of these 194 patients 143 were cured, 22 relieved, 1 was unrelieved, 18 died, and 10 remained in the institution at the end of the year. The hospital was founded 21 years ago; the building originally used is now utilised as carpenter's shop and laundry. To-day the institution comprises a mass of buildings, situated in a most suitable position in Broken Hill, on an eminence that overlooks the whole city. The hospital has 76 beds for patients in the medical and surgical wards (the women's wards are underneath those of the men), the new "overflow" medical ward, and the isolation ward (which contains four beds for specially infectious cases). The staff at present resides in the main building, but detached nurses' quarters are being erected, and a building erected by the Government as a lunacy ward—but not used owing to a later arrangement made between the New South Wales and South Australian Governments for the sending of these patients to Adelaide—will be utilised as quarters for the domestic staff. Even the extra room thus made for patients will be insufficient to meet the demands

made on the institution, but to the credit of the hospital it must be admitted that no suitable cases were last year refused admission, and even when delays occurred they were very slight. A new operating ward on modern lines has, however, been erected at considerable expense, and was formally opened this month, though operations have taken place in it since May. The ward comprises the theatre itself, an anæsthetic room, surgeon's room, bathroom, sterilising room, and X-rays and microscopic room. The resident surgeon (Dr. L. L. Seabrook) during a holiday visited most of the leading hospitals of the eastern States, and has combined in the equipment of the operating ward the most up-to-date features of what he saw on his travels. The sterilising room is fitted with an autoclave, part of the generous gift of Block 10 Company, hot and cold water tanks, steaming tanks, etc. The instrument room is supplied with a full assortment of instruments, cased in a dustproof glass wardrobe, presented by Mr. Faul (engineer of the Zinc Corporation), who turned the money intended for a testimonial to himself in this direction. The operating table is an American patent, and cost £100. Everything in the room is white or of glass—tables, chairs, and washbowls. The lighting is provided by a large double window facing east. Gas is the artificial light, but the electric light is being installed. The floor is of tiles soaked in oil and sealed to one another. Portions of the floor were laid a dozen times before passed as perfect. Much of the furniture in the ward was made by Fischer, of Adelaide, and thorough work has been turned out. The revenue of the hospital last year was £10,684, including £3774 Government subsidy. The expenditure was £7678, and £1289 was on construction account. Maintenance cost 6s 7½d per patient per diem. Under what is known as the workers' fund, 439 patients were admitted.

MEDICAL NOTES.

University of Sydney Pass List.—Faculty of Medicine.—Second Degree Examination—Anatomy and Physiology. John Harris scholarship for anatomy and physiology: T. Ewing, B.Sc. Passed with high distinction: T. Ewing, B.Sc.; Elsie J. Dalryell, H. Priestly, B.Sc., equal. Passed with distinction: Mary R. Burfitt, H. T. Marsh, equal; L. R. Parker, Elizabeth I. Hamilton-Browne, L. W. Dunlop. Passed with credit: H. R. Beattie, L. H. Foy, B.E., A. Lillian Maclean, equal; C. M. Smith, J. J. Luddy; L. A. Dey, A. M. Purves, equal; T. W. G. H. Schenk, E. T. C. Schmidt, equal. Pass (alphabetical): A. C. Arnold, A. D. Barton, J. F. G. Fitzhardinge, Margherita Freeman, G. D. Macintosh, W. F. Matthews, A. W. Mobbs, Ethel C. Parnell, E. E. Pittman, V. M. Rich, S. N. Rorke, Clara R. Smith, J. C. Storey. Third Degree Examination—Pathology and Operative Surgery and Surgical Anatomy.—Passed with distinction: E. W. Ferguson; B. J. Coen, K. Smith, equal; H. Bullock. Passed with credit: H. H. Parkinson, A. R. H. Tebbutt, B.A., R. G. Waddy, equal; K. A. Gollidge, L. M. McKillop, C. P. Stewart, H. H. Johnston; W. E. Grigor, J. W. Hoets, equal; H. G. Allen, R. S. Candlish, B.A., G. K. Smith, equal. Pass (alphabetical): H. V. D. Baret, B.A., G. M. Barron, Sophia R. Child, G. Croll, C. A. Crothers, D. Fraser, M.A., J. L. Groundwater, D. B. Hill, J. Hughes, Ettie Lyons, B.A., V. J. McPhee, L. D. Parry, M. S. Patterson, J. W. G. Powell, B.A., B.Sc. (except in practical pathology), L. H. Rogers, G. A. Sampson, A. F. Sinclair, H. C. G. Smith, Ethel Talbot, M. S. Veech, C. A. Verge, J. J. Woodburn.

Inspection of School Children.—In connection with the scheme that the Department of Public Instruction has taken in hand relative to the gathering of important data and statistics regarding the height, weight, and eyesight of public school children, the initial function took place at the District Public School, Bowral, N.S.W., last month. Mr. Inspector Cornish was present, and explained to those assembled the objects the Department has in view in getting this statistical information. Dr. Vallack, local Government Medical Officer, emphasised the importance of accurate data for economic and other reasons. He then took the first records on the machine, specially supplied by the Department for the purpose, laying stress on the need of care in testing the eyesight. The whole of the pupils attending the district school will be submitted to the various tests by the principal and staff during the coming fortnight, and the results, properly tabulated, will be forwarded to the Department. A similar proceeding will take place in June, 1908, and successive years.

The Eucalyptus Industry.—In a lecture delivered under the auspices of the Royal Society of N.S.W., dealing with recent work on the eucalypts, Mr. H. G. Smith made some interesting references to the prospects of the eucalyptus oil industry. Although recognising the importance to Australia of the preparation of oils for pharmaceutical purposes, which industry at the present time has a money value of £40,000 to £50,000 annually, Mr. Smith considers it is to the manufacturing industries that we must look for the development and utilisation of the enormous supplies of raw material now going to waste. It was possible, he said, for Australia to largely supply the demands of the world for oils useful for many solvent purposes, as well as for other uses in the arts and manufactures, for scenting soaps, and for flavouring purposes. To be successful, however, the industry would have to be systematised and governed by the results of scientific investigation. A very large proportion of the eucalyptus species, said Mr. Smith, were useless for economic purposes, but these might be eradicated, and their places taken by useful species.

Australian Health Society.—The first of a series of lectures arranged for by the Australian Health Society and Association for the Prevention and Cure of Tuberculosis was delivered in Melbourne on August 31st. Dr. Walter Summons was the lecturer, and his subject was "Miners' Phthisis and Tuberculosis." He stated that the death rate from all tuberculous diseases in the metropolis decreased from 30 per 1000 in 1890 to 20 per 1000 in 1900, and to 17 per 1000 in 1906. From consumption itself in 1906 there were only 14 deaths per 1000. During the same year the phthisis death rate in London was exactly the same (14), and 16 in Birmingham. There had thus been a great improvement in the Melbourne statistics, attributable, he affirmed, to the improved hygienic condition of the city under the present health officer (Dr. Jamieson). We had better buildings and better ventilation of them.

Child Study Association.—At a meeting of the Child Study Association of Australasia held in Sydney last month the Minister for Education, Mr. Hogue, expressed his sympathy with the object of the association. It was one of the most important movements of the century. They got to the root of human laws in trying to save the children from the dawn of their existence. Leaving children without proper attention was like building a house on an insecure foundation. Bringing up the child in a healthy way

ensured a sound mind as well as a sound body. The fact that they had so many who were not sound of body and mind accounted for so large a proportion of the people resorting to artificial stimulants, such as smoking and drinking. The strong healthy man did not need stimulants. By allowing the child to grow up healthy with sound moral surroundings they got a human being as perfect as imperfect human nature allowed. It was not necessary for him to impress them with illustrations from the past or the present to show the necessity of saving the lives and strength of the children. He would give the association all the assistance in his power.

After prolonged delays it is announced that the Receiving House at Royal Park, Melbourne, will be completed by Thursday, September 19th, upon which date it will be proclaimed open. It will provide accommodation for 40 patients, consisting of 25 males and 15 females, and its cost will be about £15,000. The Inspector-General of the Insane anticipates that this institution will give appreciable relief to the metropolitan lunatic asylums and the Melbourne gaol hospitals. It will not only be used as a place for the observation of cases, but transient cases of insanity will be treated there without being sent to the asylums at all, while the Gaol Hospital will be relieved of a large class of cases which, in the opinion of Dr. Jones, should never have been associated with a criminal institution.

PERSONAL ITEMS.

Dr. A. O. Bobart, late of the Royal Navy, has succeeded to the practice of Dr. F. W. Kane, of Nowra, N.S.W.

Dr. Lloyd-Jones has disposed of his practice at Guyra, N.S.W., to Dr. J. S. Harris.

Dr. Martindale Kendall has resigned the position of honorary ophthalmic surgeon of the Wellington Hospital, New Zealand, and has been made consulting ophthalmic surgeon.

Dr. Maurice Louissan has commenced practice with Dr. Shone, Christchurch, New Zealand.

Dr. Martin, of Dunedin, has left for England, and expects to return to the colony in about four months.

Dr. J. M. Mason, Chief Health Officer, New Zealand, met with an accident while driving with his family in his motor-car recently. The car went over a bank, and the whole of the occupants were thrown out.

Dr. J. C. Kennedy, formerly of Snowtown, S.A., is now at Maitland, S.A.

A meeting of the members of Court Temperance, A.O.F., was held recently to say farewell to Dr. T. W. Corbin, of Adelaide, who had resigned as court surgeon after a service extending over 33 years. Dr. Corbin was unable through illness to be present, but was represented by his son, Dr. John Corbin. Dr. T. W. Corbin was presented with a reading lamp as a memento of past services and of the esteem and respect in which he was held.

Dr. G. G. O. Phillips was entertained by the residents of the Heidelberg shire, Victoria, on August 24th, at the Barkly Hotel, prior to his departure for Wycheproof (Victoria), and presented with a purse of sovereigns.

Dr. Stuart Kay has entered into partnership with Dr. Gormly, of Taree, Manning River, N.S.W.

Dr. Gordon Macleod, ophthalmic surgeon, has removed from 16 College-street to 157 Macquarie-street, Sydney.

Dr. Balla-Headley, Past Grand Master of the United Grand Lodge of Victoria, returned to Melbourne on September 3rd, after travelling abroad for 14 months. He was entertained by the present Grand Master at luncheon at the Grand Hotel. On September 9th Dr. Balla-Headley was entertained by Masons generally at a smoke concert in the Masonic Hall.

Dr. F. D. Jermyn returned to Mount Gambier, S.A., this week from a pleasant trip to Japan.

Dr. Ames, late medical superintendent of the Melbourne Hospital, has commenced practice at 127 Collins-street.

Dr. Page, of South Grafton, N.S.W., was presented with a set of surgical instruments on August 31st by the students of the first-aid class, which he has been instructing for some time past.

Dr. O'Hara, from Victoria, has commenced practice at Gwalia, W.A.

Dr. G. M. Scott has left Kalgoolie, W.A., for New Zealand.

Dr. White has resigned his position as medical officer to the Warrnambool Hospital, Victoria, and has removed to Geelong, Victoria.

Dr. Moreton, of Warrnambool, Victoria, has disposed of his practice to Dr. Makin.

Dr. T. A. Hynes, who has been on a holiday visit to Ceylon, has returned to Adelaide.

Dr. Jack M. Thomson has commenced practice at Incheolm, Wickham-terrace, Brisbane.

Mr. C. A. Thelander, son of Mr. E. Thelander, of Yangan, Queensland, has obtained his M.B., Ch.B. degrees of Edinburgh, and has been appointed resident surgeon at the Royal Infirmary, Edinburgh.

Dr. Harold Bennetts, late of Temora, has been engaged in the study of tropical diseases in Liverpool, and has obtained the qualifications of D.P.H. (Lond.), D.T.M. (Liverpool), F.R.C.S. (Edin.).

Owing to ill health Dr. M. A. Reid recently relinquished practice in Brunswick, and on September 13th, the eve of his departure from the district, he was entertained at a complimentary conversation in the local mechanics' institute. There was a large and representative gathering, which included most of the medical men of Brunswick and Coburg. On behalf of friends and patients Dr. Reid was presented with several pieces of plate.

Dr. Weir was recently presented with a silver tea and coffee service by residents of Denilquin, N.S.W., where he has resided for three years, prior to his departure for Melbourne. Dr. Cade, formerly of Balranald, succeeds Dr. Weir.

MEDICAL APPOINTMENTS.

NEW SOUTH WALES.

Morton, William John, L.R.C.P., L.R.C.S., M.B., M.S., M.D., to be Government Medical Officer and Vaccinator at Inverell, *vice* Dr. Louis Vallee, deceased.
Tidswell, Frank, M.B., Ch.M., to be President of the Board of Health during the absence of Dr. J. Ashburton Thompson.

VICTORIA.

McKelvey, Dr., late Demonstrator of Anatomy at the University of Sydney, to be Medical Superintendent of the Melbourne Hospital.

McLean, Alice, to be Resident Medical Officer to the Warrnambool Hospital.

Ryan, Edward, to be Hon. Oculist at St. Vincent Hospital.

Warne, E. V., to be Junior Resident Medical Officer of the Midwifery Department of the Women's Hospital.

Zwar, Dr., to be Hon. Surgeon, Out-patients' Department, St. Vincent's Hospital.

The following gentlemen have been re-elected to their positions on the Honorary Staff of the Melbourne Hospital:—

Surgeons to In-Patients—Dr. F. D. Bird, Dr. William Moore, Dr. C. S. Ryan, Dr. B. A. Stirling, Dr. G. A. Syme.

Physicians to In-Patients—Dr. H. C. Maudsley, Dr. J. W. Springthorpe, Dr. W. E. Boyd, Dr. J. E. Nihill, Dr. G. T. Howard.

Physicians to Out-Patients—Dr. R. R. Stawell, Dr. R. H. Strong, Dr. J. F. Wilkinson, Dr. W. Ostermeyer, Dr. K. Hiller.

Surgeons to Out-Patients—Dr. T. H. Boyd, Dr. G. C. Rennie, Dr. F. H. Langlands, Dr. John Gordon, Dr. A. W. Finch Noyes.

The undermentioned gentlemen to be Medical Officers of Health for the districts set opposite their names respectively, viz.:—

Naylor, Arthur George Eyre, L.R.C.P., Shire of Bet Bet, *vice* Alfred William Rinder, L.R.C.P., resigned.

Pollock, John, M.B., Borough of Queenscliff, *vice* John Daniel King Scott, M.B., resigned.

SOUTH AUSTRALIA.

Maclean, James Megan, L.R.C.P. and S., of Port Germein, to be Public Vaccinator.

Riddell, M.B.C.S., of Port Augusta, to be Public Vaccinator.

Tobin, Joseph Richard, L.R.C.P. and S., of Kapunda, to be Public Vaccinator.

TASMANIA.

Deane, Charles M., to be Port Health Officer at Beauty Point, *vice* A. W. Graham, resigned.

Sweetman, Herbert William, to be Junior House Surgeon at the Launceston General Hospital.

WESTERN AUSTRALIA.

Andrew, F. C. F., M.D., Ch.B., to be Honorary Anaesthetist and Temporary Honorary Physician to Out-patients, Perth Public Hospital.

Dawson, T. D., to be Officer of Health, Wiluna, *vice* J. I. Parer, resigned.

Gerrard, N. J., M.B., B.S., to be Junior Resident Medical Officer, Perth Public Hospital, *vice* Dr. Griffiths, resigned.

Parer, John Ignatius, to be District Medical Officer, Quarantine Officer, and Public Vaccinator, Wyndham.

Myles, W. S., to be Officer of Health, Moora.

NEW ZEALAND.

Nicholls, Dr., of Waimate, to be Resident Surgeon by the Ophir Medical Club, Dunedin.

Shields, John, to be Junior Resident Physician to the Auckland Hospital.

Scott, Dr., to be Honorary Consulting Surgeon to the Auckland Hospital.

The undermentioned persons to be Public Vaccinators for the districts set opposite their names respectively, namely:—

Bagley, Richard Amor, M.B., Ch.B., Black's.

Craig, John, L.R.C.S., L.R.C.P. (Irel.), for the district of Mercury Bay.

Rowlands, George Hamilton, L.R.C.P., L.R.C.S. (Edin.), for the district of Mangaroa-Mangapehi.

Stapley, Walter, M.D. (Baltimore, U.S.A.), for the district of Opotiki.

Washbourn, Henry Everly Arthur, M.B., B.S., Aorere.

Zobel, Samuel, M.D., B.S. (Lond.), for the district of Wainui.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BODIES.

The following gentlemen have been registered as legally qualified Medical Practitioners in their respective States, viz.:—

VICTORIA.

Hagenauer, Henry Alexander, L.R.C.P. & S. (Edin.), 1903, Maffra.

NEW SOUTH WALES.

Hamilton, Henry Talbot, M.B., 1902, B.S. (Melb.), 1903.

Wood, Francis Aldersley, M.B., B.S. (Melb.), 1904.

For Additional Registration:—

MacInnes, Angus, M.S. (Syd.), 1907.

SOUTH AUSTRALIA.

Campbell, Sarah Maud, M.B., B.S. (Melb.), 1907.

Gilbert, Henry, M.B., B.S. (Melb.), 1901; M.R.C.S. (Eng.), L.R.C.P. (Lond.), 1904; F.R.C.S. (Eng.), 1906.

Wilson, Hugh Campbell, M.B. (Melb.), 1906.

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

BIRTHS, MARRIAGES AND DEATH.

BIRTHS.

- DEY.**—September 3rd, 1907, at The Surgery, Bourke, to Dr. and Mrs. Robert Dey—a daughter.
- HALL.**—August 30th, at Glenalvon, Manly, Sydney, the wife of G. R. P. Hall, M.B., Ch.M.—a son.
- MACDONNELL-KELLY.**—July 12th, at The Wings, Kemerton, England, the wife of Walter Macdonnell-Kelly, M.D.—a daughter.
- MACCOLL.**—August 22nd, at "Glenara" Camberwell, Victoria, to Dr. and Mrs. D. Stewart MacColl—a daughter.
- YELLAND.**—August 20th, at "Corio," Brunswick-street, Fitzroy, Victoria, to Dr. and Mrs. Alfred C. W. Yelland—a daughter.

MARRIAGES.

- ELWORTHY—MAXTED.**—August 5th, 1907, at St. Mary's Cathedral, Sydney, William Henry Elworthy, M.B., Ch.M., eldest son of William Elworthy, of Imbil, Gympie, Queensland, to Nellie Isabel Maxted, youngest daughter of the late Sydney Maxted, ex-Director of Charities.
- FENNER—STIRLING.**—August 21st, at St. Peter's Church, Melbourne, by the Rev. G. E. Brown, Norman Wilson, son of G. O. Ross Fenner, to Lilian Mary, daughter of Dr. Robert A. Stirling, Melbourne.
- SWINSON—DAVIDSON.**—July 24th, at St. Andrew's Cathedral, Sydney, by the Rev. W. Newmarch, Albert Geoffrey Swinson, third son of Dr. G. N. Swinson, M.R.C.S. (Eng.), L.R.C.P. (Edin.), of Coolah, N.S.W., to Bertha Gordon, second daughter of the late Lewis Gordon Davidson, M.D., Goulburn, N.S.W.
- RUSSELL—SKINNER.**—July 11th, at Alberton, Walter Henry Russell, M.B., B.S., of Wallaroo Mines, to Stella Skinner, of Alberton, Victoria.
- GRINDROD—SKOGLUND.**—July 3rd, 1907, at St. Matthew's Church of England, Bondi, Sydney, Dr. W. Campbell Grindrod, of Mount Morgan, Queensland, to Elees Maree, daughter of Mr. Gustaf Skoglund, of Mastrand, Bondi, Sydney, late of Elsternwick, Victoria.

DEATH.

- DAWSON.**—September 5th, at North Adelaide Hospital, S.A. Eulalie, the dearly beloved wife of Dean Dawson, Laura.

BOOKS RECEIVED.

We have received the following seven volumes from Messrs. W. B. Saunders, of Philadelphia and London, per Mr. Jas. Little, of Bourke-street, Melbourne:—

1. A Manual of Diseases of the Nose, Throat and Ear. By E. B. Gleason, M.D. Number of pages, xvi + 556. Illustrated. Price, 8s. 6d.
 2. Atlas and Epitome of Diseases of Children. By Dr. R. Heckz and Dr. J. Trumpf. Edited by J. A. Abt, M.D. With 48 coloured plates, 147 text illustrations. Number of pages, xv. + 453. Price, £1 1s.
 3. Diseases of the Skin. By H. W. Stelwagon, M.D. Fourth edition. An octavo of 1135 pages, with 258 text illustrations and 32 full page plates. £1 5s.
 4. A Text-Book of Obstetrics. By B. C. Hurst, M.D. Fifth edition, with 767 illustrations, 40 of which in colours. Number of pages, xv. + 915. Price, £1 1s.
 5. A Text-Book of Embryology for Students of Medicine. By J. C. Heisler, M.D. With 212 illustrations, 32 of them in colours. Third revised edition. Octavo volume of 432 pages. Price, 12s. 6d.
 6. Surgical Diagnosis. By Dr. N. Eisendrath, M.D. Octavo of 775 pages, with 482 illustrations, 15 in colours. Price, 25s.
 7. Diagnostics of the Diseases of Children. By Le Grand Kerr, M.D. Octavo of 542 pages. Illustrated. Price, 25s.
- Archives of the Middlesex Hospital. Vol. i.-ix. London: Macmillan & Co., Ltd.
- Manual of Surgery. By Alexis Thomson, F.R.C.S. (Edin.), and Alexander Miles, F.R.C.S. (Edin.) Vol. 2. Regional Surgery. Second edition, revised and enlarged, with 208 illustrations. Crown 8vo. Edinburgh: Young J. Pentland. 1907. Sydney: Angus & Robertson. Price, 21s. net.

We have received the following two books from Messrs. Lea Bros. & Co., Philadelphia and New York, per Mr. L. Bruck, of Sydney:—

1. A Treatise on the Principles and Practice of Medicine. By A. R. Edwards, M.D., Professor of Medicine in the Northwestern University Medical School, Chicago. Illustrated with 101 engravings and 19 plates. A volume of vii. + 1328 pages. Price, 25s.
 2. Progressive Medicine: A Quarterly Digest of Advances, Discoveries, and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics in the Jefferson Medical College of Philadelphia, assisted by H. B. M. Landis, M.D. Vol. I., March, 1907. Surgery of the Head, Neck, and Thorax—Infectious Diseases—The Diseases of Children—Rhinitis and Laryngology—Otolaryngology. A volume of vii. + 280 pages. Price, 10s. 6d.
- The Influence of Cod Liver Oil on Tuberculosis. By J. W. Wells, M.D., D.P.H., F.C.S. Manchester: The University Press, 1907. Price, 2s. 6d.
- The Journal of Hygiene. Special number containing Reports on Plague Investigations in India. Cambridge: University Press. July, 1907. Price, 6s.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Messrs. Burroughs, Wellcome & Co., Sydney; Dr. C. G. Willis, Sydney; Mrs. M. Bradley, Sydney; Dr. A. Cheney, Melbourne; Dr. W. L. Cleland, Adelaide; Mr. L. Bruck, Sydney; Messrs. Fassett & Johnson, Sydney; Mr. D. A. Greenlee, Sydney; Messrs. Baillière, Tindall & Cox, London; Joint Hon. Secs., United Services Medical Services, London; Dr. B. B. Ham, Brisbane; Dr. Sawkins, Sydney; Dr. G. H. Holmes, Warralua, N.S.W.; Dr. W. G. Armstrong, Sydney; Messrs. Kopsch & Co., Sydney; Dr. A. B. Judson, New York; Mr. E. P. Bailey, Sydney; Mr. G. Arnold, Sydney; Dr. C. W. Bruce, Sydney; Dr. R. S. Bowker, Sydney; Dr. H. C. Hinder, Sydney; Dr. T. Fiaschi, Sydney; Dr. B. J. Newmarch, Sydney; Dr. Thos. S. Dixon, Sydney; Dr. Maitland, Sydney; Dr. Chas. MacLaurin, Sydney; Messrs. W. B. Saunders and Co., Philadelphia; The Lambert Pharmaceutical Co., St. Louis; the Hon. Treasurer, Queensland Branch B.M.A., Brisbane; the Editor the *Dairy and Farm Journal*, Brisbane; Dr. Hy. Laurie, Melbourne; Dr. Halford, Brisbane; Dr. A. Stewart, Dalby, Queensland; Dr. A. E. Martin, Perth, W.A.; Antiphlogistine Co., Sydney; Dr. Newland, Adelaide.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor."

We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON) MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valeric Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creosote." The *Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

AUSTRALASIAN MEDICAL GAZETTE

No. 313.

SYDNEY, OCTOBER 21st, 1907.

VOL. XXVI., No. 10.

EXTRA-UTERINE PREGNANCY.

By J. A. G. Hamilton, B.A., M.B., Lecturer on Gynecology, Adelaide University; Hon. Gynecologist, Adelaide Hospital.

WHEN the President asked me to read a paper on the above subject I thought I had better confine my remarks to its etiology and diagnosis, so as not to overlap the other papers on the same subject. I have a number of interesting specimens of ruptured tubal pregnancy, but unfortunately they are in the custody of Professor Watson, who is at present absent from the State.

Extra-uterine or ectopic pregnancy includes all forms of gestation that originate outside the uterine cavity. It is generally conceded that, in at least a large proportion of cases, normal fertilisation of the ovum occurs in the Fallopian tube, and unless it is arrested in that situation, it eventually passes into the uterus, and a normal pregnancy results. Some authorities divide extra-uterine pregnancies into three types—tubal, ovarian and abdominal—whilst others maintain that the ovarian and abdominal type really originated in the tube. Ovarian pregnancy is an extremely rare occurrence. Howard Kelly, with his vast experience, says he has never seen one. However, the occurrence is now admitted as possible, but a purely abdominal pregnancy is not at all likely to occur, as even admitting that the ovum may become fertilised in the peritoneal cavity (which is quite likely, as spermatozoa have been found floating in the abdominal cavity and around the ovary, lying in wait for the ovum), even then, I say, the product of conception would most probably be at once destroyed and absorbed by the peritoneum.

Ectopic gestation was formerly considered a rare condition; now we know it to be of relatively common occurrence. Pelvic hæmatocele, formerly attributed to other causes, is now recognised to be nearly always due to the rupture of the gestation sac of tubal pregnancy. Greater skill in diagnosis, and early resort to operation in doubtful cases, has proved this condition to be much more

frequent than was supposed a few years ago, and, if we are ever on the alert, it will be found these cases are not so infrequent. In looking over the case books at the Adelaide Hospital, I find there have been 52 operations for ruptured tubal pregnancy since 1901.

Etiology.—From what I have read, and more especially from what I have seen, it appears to me that the cause of ectopic gestation is still a mystery. All that is yet known is that the impregnated ovum becomes arrested in its passage through the tube, and development of the embryo begins. The arrest may be due to one or more of several causes, some of which are yet unknown. The cause may be looked for in the tube itself, the ovum, or possibly in both. Clinical observation has taught us that women who have had several children and then passed through a period of several years without becoming pregnant, have become pregnant in the abdominal way. Again, it has been noticed that women who have been married for several years, and have been sterile these years, are subject to ectopic gestation at their first pregnancy. These facts have given colour to the theory that the sterility may have been due to chronic salpingitis of septic or gonorrhoeal origin, which, by thickening of the tube and destruction of its cilia, prevented the normal passage of the ovule to the uterus, and at the same time favoured the implantation of it in the tube. Many authorities deny this theory. Bland Sutton says: "A careful series of investigations on an abundant supply of material teaches us that a healthy Fallopian tube is more likely to become gravid than one which has been inflamed." Taylor says: "In 43 cases no certain evidence of pre-existing inflammation could be found." Kelly says: "The fallacy of the inflammatory theory has been demonstrated by Martin, and careful examinations of inflamed tubes show that the cilia are rarely destroyed in well marked cases of pyosalpinx, and are perfectly preserved in cases of catarrhal salpingitis, and that cilia are readily demonstrated in nearly every case of tubal pregnancy which has been examined by himself and his assistants." Lawson Tait, Dührssen, Kustner, and Orth-

man regard the inflammatory theory as the most plausible etiological factor. Mikulicz reports ten cases out of 30 due to the obstruction of the passage of the ovum from mechanical causes. The fact that tubal pregnancy often occurs twice in the same subject, somewhat helps the theory that it is caused by some disease of the tube. I have met three cases in which tubal pregnancy occurred at different times in both tubes. Ectopic gestation is probably due to some mechanical cause which obstructs the lumen of the tube and prevents the fertilised ovum from reaching the uterine cavity, such as a kink in the tube caused by adhesions binding down the tube, and restraining its movements. The history of a case of tubal pregnancy often points to repeated attacks of pelvic peritonitis, and the fact is most suggestive that extra-uterine pregnancy frequently occurs in women who have been long sterile. Neoplasms of the tube, ovary or uterus may compress the tube and prevent the passage of the fertilised ovum. This compressure or distortion may allow the spermatozoa to pass, but not allow such a large body as a fertilised ovum to pass through. Sippel reports an interesting case of "migration" of the fertilised ovum, in which tubal pregnancy had taken place on one side, and the corpus luteum verum was found in the ovary on the opposite side. Leopold, by experiments on rabbits, has proved that this journey through the abdominal cavity can be made. He found that after tying the right tube and removing the left ovary, pregnancy still took place. Howard Kelly reports a case in which he removed the diseased tube on one side and the diseased ovary on the opposite side, leaving a tube on one side and an ovary on the other; pregnancy occurred within a short time, and, at a later date, extra-uterine pregnancy occurred, necessitating the removal of the remaining tube. He explains this migration (?) of the ovum by observation at operations of the tolerable frequency, in which both tubes and ovaries are found lying down behind the uterus, with the fimbriated extremity of the tube of the right side lying in contact with the left ovary, and *vice versa*.

Diagnosis.—The diagnosis of tubal pregnancy is not often made before rupture, because there are no symptoms that direct the woman's attention to the abnormality of her condition; very often she thinks she is normally pregnant. Usually, however, the early occurrence of some of the accidents of

tubal gestation attract her attention. If a woman who gives a history of a missed period or periods is suddenly seized with sharp pain in the side, as if "something had given way," followed by faintness, vomiting and collapse, the suspicion of extra-uterine pregnancy should be aroused. Changes in the skin, in the nipples, in the gastro-intestinal tract may resemble those of normal pregnancy; there are, as a rule, mammary changes. These changes are, however, less pronounced than in uteri gestation. The vagina may undergo changes similar to normal pregnancy; it becomes soft, relaxed, and has the typical violet discolouration. Menstruation usually ceases at first and then returns, often assuming the character of continuous menorrhagia; the uterus is generally enlarged to a slight extent. The expulsion of decidua from the uterus is always an important sign, and in any suspected case the woman should be questioned as to the passage of such tissue, and all shreds should be submitted to microscopic examination. It should always be remembered, however, that tubal pregnancy may occur without the presence of any of the signs of pregnancy. Women in perfect health, thoughtless of pregnancy, have died from acute hæmorrhage from a ruptured tubal gestation, the first symptom of their condition.

It is of great importance to study the symptoms of the accidents of tubal pregnancy; as I have already said, it is usually the accident of rupture that directs the woman's attention to her abnormal condition. The symptoms depend on the seat of the rupture. Rupture into the broad ligament is a much less serious accident than rupture into the peritoneal cavity. When the rupture takes place into the layers of the broad ligament, the hæmorrhage is usually not so profuse, as it is controlled by the pressure of the surrounding structures; but when the gestation sac ruptures into the peritoneal cavity there is nothing to control the hæmorrhage, and death may result in 24 hours, unless, as occasionally happens, the ovum plugs the rent in the tube. Immediately after the rupture into the peritoneum it is very difficult to palpate the blood in the pelvis, behind the uterus, before the blood becomes clotted. At first you can only feel an ill-defined fulness in the pelvis. If the woman survives the first loss, and the blood becomes solid, it may then be palpated as a solid mass, bulging into the vagina, in the pouch of Douglas, or in the lateral fornices.

As a rule, the symptoms caused by the rupture of a tubal pregnancy are easily recognised, but I have twice opened an abdomen thinking I had a ruptured gestation sac to deal with; in one case the symptoms were caused by an apoplexy of the right ovary, whilst in the other the symptoms were caused by leakage of infected material from an acute gonorrhoeal salpingitis. In this case there was a history of a missed period and several attacks of sharp abdominal pain, accompanied by irregular blood-stained vaginal discharges. An examination showed a slightly enlarged uterus with some resistance, and marked tenderness in both lateral fornices. I suspected tubal pregnancy, and warned my house surgeon to be on the lookout for any acute symptoms. A few evenings after he rang me up to say the patient had been suddenly seized with agonising pain in the lower abdomen, and a feeling as if "something had given way." She had marked collapse with a pulse of 150. I naturally thought my original suspicion of tubal pregnancy was verified. I lost no time in opening the abdomen. To my surprise, however, there was no blood in the abdomen, but both tubes were found slightly swollen and inflamed. On pressure a few drops of pus could be squeezed out of each tube at their patent fimbriated end. Evidently a drop or two of pus had leaked from one of the tubes into the peritoneum, causing the acute pain and collapse. Simulating, as it did, a ruptured tubal gestation, probably the irregular uterine hæmorrhages were caused by the accompanying endometritis and salpingitis. A few days ago I saw a case in consultation with Dr. A. A. Hamilton. We both agreed that her symptoms pointed almost conclusively to ruptured tubal pregnancy, and had her removed to the hospital at once. To make sure of my diagnosis I opened the posterior cul-de-sac, and found the uterus and appendages bound down by recent lymph; evidently there had been an acute salpingitis, with an escape of infected material from one or both tubes.

The case of apoplexy of the ovary was an interesting one. A lady whilst dancing was seized with a sudden acute pain in right side of abdomen, with a feeling of faintness and collapse. On examination next morning the posterior and right lateral fornices were found filled by a doughy mass. On opening the abdomen a quantity of dark blood escaped, giving exactly the appearance of a ruptured tubal pregnancy. However, on examination

both tubes were found normal, but the right ovary was the seat of an ovarian apoplexy, which had evidently caused an amount of hæmorrhage, which is very unusual in this condition of ovary.

The treatment of tubal pregnancy is operative in all cases, as soon as the diagnosis is made or suspected. It is unwise to wait for reaction, as used to be taught when there was much shock. The symptoms are caused by hæmorrhage, and it is in accord with general surgical principles to arrest hæmorrhage at once. On opening the abdomen no time should be lost in looking for the ruptured sac and emptying out blood-clot, but the ovarian and utero-ovarian vessels should be at once clamped; then the danger of further hæmorrhage is at an end. If there be much blood in the abdomen, large quantities of normal saline solution should be used to thoroughly wash out all blood and blood-clot, especially in the kidney pouches and under the liver, as this blood-clot is a ready pabulum for infection if left in the abdomen. The abdominal route is as a rule to be preferred in these cases, but if there is any doubt about the diagnosis, a vaginal colpotomy will clear it up. If the rupture is an old one and there is no evidence of fresh bleeding, a vaginal incision and clearing out all blood-clots will be sufficient, but as a rule the abdominal route is the safest way to remove the ruptured tube and secure the blood supply. Most of the cases of unruptured tubal pregnancy that have been operated on were not recognised until the abdomen was opened. The operation was performed under the diagnosis of pyosalpinx or some other tubal disease, which shows the value of the general rule to operate without delay for all gross diseases of the tubes, and the woman is saved the imminent dangers associated with a developing tubal pregnancy if an ectopic gestation sac is removed before rupture.

(Read before the South Australian Branch of the
British Medical Association.)

SOME CASES OF ECTOPIC GESTATION.

By Alfred Austin London, M.D. (Lond.), Lecturer on
Obstetrics in the University of Adelaide, S.A.

THE cases which form my contribution to this evening's discussion illustrate chiefly some of the difficulties in diagnosis that may occur. Thus, the first case, though it had gone to

full time, was thought by a distinguished and experienced gynaecologist to be a case of intra-uterine gestation; the second case, definitely pronounced by an equally distinguished surgeon to be an extra-uterine gestation, was not even pregnant. About the third case there was little doubt; the fourth case might well have been an instance of appendicitis; the fifth, though correctly diagnosed, would just as well have done for a case of rupture of an aneurism, or of an ulcer of the alimentary tract. Case V. is chiefly of interest as affording an example of white leg following a very early rupture of a pregnant tube, a complication which I do not remember having seen previously recorded.

CASE I.—In September, 1891, I assisted the late Dr. Way at the Adelaide Hospital in operating upon a case of extra-uterine pregnancy. It was supposed to have gone to nearly the full time of gestation, but it was not diagnosed as ectopic; it was rather thought to be a case of incarcerated retroverted uterus, in which the gestation had continued and had thinned the anterior wall; the foetus was correctly supposed to be dead, and as the pelvic tumour greatly reduced the antero-posterior diameter, Cæsarean section was performed. The supposed uterine wall was very thin; the contents were stinking; the macerated foetus was removed, as well as the placenta, and a sinus leading into the rectum noted. The uterus could not be removed. Owing to the collapsed state of the patient the uterus was sewn up, and nothing further attempted. The patient survived 60 hours, and the autopsy showed that the real uterus was pushed away to the right, whilst the gestation sac was connected with the left tube, the left round ligament being on its anterior aspect. (*A.M.G.*, vol. xi., page 80 Dec., 1891.)

CASE II.—About the same time I had a pelvic tumour in a young woman in my ward at the Adelaide Hospital. At this time we had not thoroughly emancipated ourselves from the dangerous routine practice of aspirating abdominal tumours for diagnostic purposes; in this case nothing came through the needle, and for reasons upon which I need not now enter, I ventured an opinion that we were dealing with a case of colloid disease either of the rectum or of the ovary. A consultation of the staff was held and the patient anæsthetised; the late Dr. Gardner, being

reputed to possess the smallest hand, was requested to introduce it per rectum. His report was definite: he could feel the foetal limbs plainly; it was therefore an extra-uterine foetation. Operation followed, and my diagnosis of colloid disease turned out to be correct.

CASE III.—In 1895 I went round to Sydney in the s.s. "Adelaide," and when proceeding down the gulf on the Saturday evening, the captain informed me that he had a lady on board who seemed to be very ill, and he asked me to see her. She had that morning arrived from West Australia in another boat, and had been transhipped to the "Adelaide" at the wharf on a mattress. Her age might have been about 25; she was, I fancy, a primi-gravida, and there was a history of a missed period followed by some irregular menorrhagia. She was well when she left West Australia, but was very seasick, and hence not much notice was taken of her. I found her in her bunk with all the indications of a smart attack of pelvic inflammation, pain, tenderness, slight temperature, but not much collapse, in spite of incessant vomiting; probably most of her pain was due to the fact that she had had retention of her urine for rather a long time. Fortunately I had a suitable catheter with me, and was able to relieve her; subsequently I made an examination, but I cannot recollect any details, except that I was sure of the diagnosis of tubal pregnancy. On the Monday we reached the wharf at Melbourne, and the lady was removed to a private hospital, where she was successfully operated upon by Dr. Rothwell Adam.

CASE IV.—Mrs. B., *æt.* 26, was married on March 18th, 1903; her menses were regular as to time both before and after marriage up to the end of October, and she had no reason to suspect herself to be pregnant, more especially as the periods had been more profuse all the year; her more recent dates were September 25th-30th, October 25th-31st, and on November 5th she again had some hæmorrhage. I was called to see her first on Nov. 7th, and found her with her knees drawn up on account of sudden and severe pain in the right iliac fossa, but nothing very definite could be made out. For a whole week she had repetitions of these two symptoms, with a mild degree of fever; the colic was sometimes so severe as to require a hypodermic of morphia; the metrorrhagia was

mild in degree, and intermittent, accompanied by the passage of small clots, but nothing suggestive of an abortion was seen; there were no mammary signs to suggest pregnancy. Twice I administered chloroform to relieve her pain, and then availed myself of the opportunity of thoroughly examining the pelvis. As no improvement in her symptoms occurred, consent was readily obtained for her removal to a private hospital for exploration; she was removed on the evening of the 13th, during the whole of which day her temperature had been steadily rising, and on arrival at Wakefield-street it was found to be 103° , but by the following morning it had fallen to normal, and remained so till after the operation. On the 13th Dr. J. C. Verco saw her with me, and agreed with me as to the justifiability of an exploration. No absolute diagnosis was arrived at; there was clearly some pelvic peritonitis, but the site of the tenderness was quite consistent with appendicitis; on a previous occasion the patient had exhibited, in conjunction with high fever, undoubted symptoms of hysteria, and whilst the metrorrhagia could not be ignored, there was no history of a missed period such as one rather looks for to complete the diagnosis of ectopic gestation, nor was there any definite pelvic tumour to be felt.

When on the 15th, with the assistance of Drs. Verco and Gunson, I dilated and curetted from the uterus what appeared to be a definite decidua, I felt that the diagnosis was correct. The abdomen was opened, and the right tube found to be pregnant, but not ruptured; blood-clot was found in Douglas' pouch in moderate amount; the degree of peritonitis was but slight. The tube and ovary were removed; when the toilet had been completed some trouble occurred from what at first appeared to be deep hæmorrhage, but was in reality bleeding from the deep fat of the abdominal wall, which was very vascular. The wound was sutured in layers, and closed without drainage. Her recovery was uninterrupted, and she returned home in three weeks.

CASE V.—Mrs. O., æt. 36, was married at 24 years of age; six months later she had a miscarriage at the third month; this was followed in due time by the birth of a dead child; next a boy was born, who is now nine years old; then followed a miscarriage of twins at the tenth week; the fifth pregnancy resulted in

the birth of a girl, five years ago, since which event she had not been pregnant.

Her last period occurred about the end of July, 1904, and as her cycle is about 25 days, she expected it to reappear about the 26th August; as, however, it did not come, she suspected herself to be pregnant. On September 9th she felt some slight abdominal pains, such as she had often experienced during pregnancy, but the next day she was better again. On Sunday, the 11th, she was walking with a sister across the Park lands from the West Terrace Cemetery, when she stooped to assist in raising a drunken woman whom some larrikins were baiting. She felt a sharp pain shortly afterwards as she resumed her walk home; it was with difficulty that she did get home, and then she could scarcely sit down to her tea; she had to retire from the room, and shortly after she went to bed. The pain then became very bad, both in the lower abdomen and in the back, and for this turpentine stupes were applied. The patient had attacks of retching, but no actual vomiting; there were cold sweats alternating with brief snatches of sleep. The wise woman of that particular suburb, who chanced to come in promiscuous-like, divined that abortion was impending, and that it was not necessary to invoke medical aid, but as she got worse hour by hour, her friend telephoned for me at 4 a.m. on September 12th.

When I arrived I found her looking extremely blanched, and quite expected to find the bed soaked with blood, but there was no vaginal loss at all. Her pulse was extremely weak, though the heart was beating steadily. It seemed likely that her collapse was due either to internal hæmorrhage or to perforation of some viscus. The pains were chiefly pelvic; there was remarkably little tenderness; there was no great distension; there was no fixation of the diaphragm, nor marked rigidity of the recti muscles. She had been unable to void urine for some hours, and a catheter was passed, somewhat to her relief. She immediately returned a drink of water for which she asked. Her temperature was not raised. I concluded that the case was one of ruptured tubal pregnancy. The patient was given a hypodermic of strychnine, after which her pulse rallied somewhat. A nurse was sent down to look after her pending her removal by ambulance to a private hospital. When seen again at 8.30 a.m., there was no improvement, so that the

friends acquiesced in the suggestion of an exploration. When she arrived at the hospital at noon she was in a state of great collapse; at 1 p.m. she vomited; at 3.30 she was pulseless at the wrist.

She rallied as soon as Dr. Cooper commenced administering ether. A vein at the left elbow was opened, and $1\frac{1}{2}$ pints of saline fluid were injected by Dr. Gunson. This had the effect of greatly improving the pulse. The abdomen was rapidly opened. On reaching the peritoneum blood could be seen beneath the membrane, and on incising it fluid blood gushed out in vast quantities and large clots escaped. A good deal more was irrigated out, and it was evident from the colour that there was then no active hæmorrhage going on. Nothing wrong could be felt on handling the Fallopian tubes, but on delivering it outside the wound the right tube was seen to be ruptured, the gestation having occurred in its inner fourth (isthmian). The tube and ovary were removed, free lavage of the abdominal cavity was employed, and to ensure adequate drainage not only was a Keith's tube left in the lower angle of the wound but Douglas' pouch was also opened by posterior colpotomy, and a plug of gauze inserted; the anaesthetist reporting that the patient could stand it, the abdominal wall was sutured in layers, but towards the end the patient seemed very collapsed, and was hurried off the table. No sooner had she been put into bed than it was found that the oozing from the glass tube was alarmingly red. Plenty of hot water was immediately poured into the abdominal cavity in order to check it.

At 8 p.m. her pulse was countable (140); next morning there was still considerable oozing, and a rubber tube was slipped inside the glass tube, which was then removed; the rubber tube itself was left out the same evening. There was no vomiting, the catheter was only required once, and the bowels readily responded to small doses of calomel. Per vaginam there was also considerable oozing, and the gauze drain was removed from Douglas' pouch on the morning of the 14th. On the 16th a decidual cast of the uterus was irrigated from the vagina, but there was no pain nor hæmorrhage attending its expulsion from the uterine cavity. All went on fairly well till the 20th, the patient picking up in strength every day, though the temperature did not come down to normal,

and the pulse rate was always high. On the date mentioned (20th) an abscess burst through the drainage tube hole, so foetid as to suggest a fæcal fistula. The temperature and pulse immediately fell to normal; the stitches were not infected, nor was patient's recovery delayed, seeing that she left for home on October 9th. Three days before she had a slight rise of temperature, and some acute pain in the left side for about 24 hours, suggestive of a pulmonary infarct, of which, however, there were no physical signs.

On the fourth night after her return home she had pain in the left lower limb and in the left shoulder, which kept her awake nearly all night, but had disappeared next morning, her temperature being then only 99° . Nothing definite was made out. By next day she had recovered, but on October 17th, at 2 a.m., a similar attack occurred, with severe pain in the left calf and knee. At 10 a.m. I found solid œdema of the whole left lower limb, with punctate hæmorrhages scattered over it. There was no pitting on pressure; there was no arthritis. It was thought that the saphena vein was plugged in the groin, but this could not be determined with certainty. The circumference of the calf exceeded that of the opposite side by $1\frac{1}{2}$ inches, and the left thigh was $1\frac{1}{2}$ inches more in measurement than the right. On the evening of this day (17th) the menses set in, and were rather profuse. There was the usual mild pyrexia for about ten days, the evening temperature never rising above 101.6° (19th and 20th), and gradually subsiding to normal. The limb was swathed in cotton wadding with glycerin of belladonna, hypodermic injections of strychnine were administered at regular intervals, and an occasional opiate or hypnotic when required. On the 22nd measurements showed the left thigh to be $4\frac{1}{2}$ inches greater in circumference than the right, and the calf $2\frac{1}{2}$ inches greater. On the 27th the corresponding measurements showed a difference of $2\frac{1}{4}$ and $1\frac{1}{4}$ inches respectively; by the 21st the difference as regards the calf was $\frac{1}{2}$ inch. It is an interesting point that the patient's mother herself had white leg after the birth of the patient, who was her seventh child. It was a severe attack, as on three subsequent occasions it was necessary for her when pregnant to use crutches.

**A CASE OF EXTRA-UTERINE PREGNANCY, WITH
A LARGE HÆMATOMA IN THE ABDOMEN.**

By C. E. Todd, M.D. (Brux.), M.R.C.S., L.R.C.P.,
Adelaide.

THE following case was so difficult of diagnosis, and presented so many unusual symptoms, as to be perhaps worth a record. I was called early to see Mrs. W. H., *æt.* 36. Of late she had suffered from colicky pains in her abdomen, especially at night, and had noticed that her stomach had become of increasing size. The pains were followed by an action of the bowels, and on a few occasions she had felt faint. On the morning of my visit, while at stool, she had suddenly felt faint and had to be helped back to bed. When I saw her she had still pain in her lower abdomen and her faintness had not quite passed off. Her temperature was subnormal, and pulse quickened. She attributed the sudden increase in her pain to her period, which had just come on. Her complaint was of increasing size and pain in her abdomen. Her bowels she described as loose, and her periods had not been irregular, and she had not had vaginal discharge or bleeding in between the time. Vaginal examination, owing to her fatness, gave no information. Dr. Giles gave her ether shortly afterwards.

The abdominal tumour was elastic and very freely movable. It could be readily pushed down into her lower abdomen and up under her costal arch. It was also easily displaced from side to side. Per vaginam the os uteri was soft and patulous, and there was a sense of doughy resistance in the left broad ligament. Except that the patient was pale there were no other signs noted. A catheter specimen of urine was acid, and contained neither albumen nor sugar. We arranged to operate next morning, thinking we had to deal with either an ommental hydatid or an ovarian cyst with long pedicle.

Under ether incision below umbilicus about three inches long—the abdominal walls were noted to be very vascular—on exposing the peritoneum it was obvious that there was free blood in its cavity, and on opening it an enormous mass of blood-clot was cleared out. The hæmorrhage, which was still profuse,

was found to come from a ruptured extra-uterine pregnancy on the left side; the ovarian artery and end of uterine artery were ligatured, and the placenta, fœtus and part of left broad ligament removed. We then turned our attention to the abdominal tumour, which could be quite easily made to project at the wound. It was free from adhesions, had a very thin, shiny wall, and, from its colour, was thought to contain blood-clot. The question arose, what was it and what to do with it. Dr. Giles and I thought, and Dr. A. A. Hamilton, who was giving the ether, agreed, that it was a hæmatoma. Given a large, tense thin-walled swelling, obviously containing blood, situated in the upper abdomen, and also a ruptured bleeding Fallopian tube, the inference was evident, viz., that the blood must have come from the bleeding ovarian vessel, and by some passage found its way into and distended a pre-existing cavity. The swelling was so tense and so thin-walled that we were afraid to handle it roughly in case it should burst. We decided that it would be best to leave it alone without spending more time in elaborating our diagnosis. We also hoped that it if contained nothing but blood this might ultimately get absorbed. The abdomen therefore was closed in the ordinary way without drainage. The patient made an uninterrupted recovery. When she began to get about the tumour in her upper abdomen was evidently smaller, and in the course of two months had disappeared entirely. Eighteen months after this operation we had occasion to give this patient an anæsthetic, and we took the opportunity of examining her abdomen, but no vestige whatever could be felt of her former large tumour. I find it difficult to account for the presence of this large blood tumour in the upper abdomen, except on the supposition that it communicated with the Fallopian tube and was gradually filled as bleeding occurred from the tube. It might perhaps have been possible to determine this point had a minute investigation been safe or possible; but I am certain that any rough handling of the tumour would have burst it, and our abdominal cavity would have been full of blood-clot, a condition which would have been very difficult to keep aseptic. That we did the right thing in leaving the tumour alone is certain from the ultimate result.

PREGNANCY IN A DOUBLE UTERUS.

By T. G. Wilson, M.D. (Syd.), F.R.C.S. (Edn.), Gynaecologist to the Adelaide Hospital.

I WISH to show to-night an example of pregnancy in one horn of a double uterus, with rupture at about the third month. The patient, a young woman of 19, was sent into the Adelaide Hospital by Dr. Jay as a ruptured ectopic. When I saw her shortly after admission she was in a moribund condition, absolutely blanched, no pulse to be felt at the wrist, and the heart beating about 180 per minute. The patient was taken to the operating-room at once, and while I was opening the abdomen saline was being transfused into both basilic veins. The specimen and foetus shown were removed as quickly as possible, but despite all efforts at stimulation the patient did not rally and died about 20 minutes after being put back to bed. At the post-mortem I was able to obtain the whole pelvic contents, which are shown to-night. The amount of free blood in the peritoneal cavity was enormous, and at the post-mortem, when the heart and great vessels were opened the fluid they contained was evidently mostly saline, tinged with blood.

The conditions present in this specimen are quite analogous to those found in an ordinary tubal pregnancy, inasmuch as though the pregnancy is in a sense intra-uterine, this undeveloped uterus has failed to respond to the stimulus of pregnancy, and has allowed the trophoblastic cells of the chorion to invade the whole thickness of the uterine wall, with the result that rupture has taken place. It is also of interest as illustrating how in such a case the microscopic appearance is identical with the findings in a case of chorio-epithelioma, which is histologically a condition of untrammelled overgrowth of trophoblastic cells.

I have had sections cut through the site of rupture of the fundus, and Dr. Mainwaring has consented to demonstrate these and to compare them with sections from cases of chorio-epithelioma and hydatiform mole. The process of implantation of the ovum in the tube is now recognised as being exactly the same, as regards the ovum, as the process which occurs in the uterine mucosa, and which was originally enunciated by Peters 1899. The early ovum is covered by a

thick layer of proliferated ectodermal cells, forming the trophoblast. These cells, which are divided into an inner layer, Langhan's layer, and an outer layer, the syncytium, are the active agents in eating into the maternal tissues and so fixing the ovum *in situ*. In a normal uterine pregnancy this process of fixation is complete about the sixth or eighth week, and after this time the trophoblastic cells cease their activity and disappear except at the tips of some of the villi. But while in the uterus there is a thick vascular layer into which the ovum can eat its way, in the tube there is very little or no connective tissue between the surface epithelium and the tubal muscle, so that the trophoblastic cells burrow into the muscular wall of the tube.

The proliferation of trophoblastic cells is not pathological, and the abnormal penetrating action, such as occurs in tubal and ovarian pregnancy, and in some cases of pregnancy in abnormal uteri, is not due to any difference in the trophoblast of such an ovum, but to the difference of the soil and to the failure of the maternal tissues to respond to the presence of the growing ovum, and this penetrating action, which, if occurring in the same degree in the uterus itself, would be considered pathological, constituting a malignant infiltration—*e.g.*, chorio-epithelioma—must in the case of an abnormal pregnancy—*viz.*, a tube or an undeveloped uterus—be considered normal.

The impossibility of maternal reaction to the presence of the ovum can be easily understood in the case of a tubal or ovarian pregnancy, but why some apparently undeveloped uteri do react and allow of the pregnancy going to term, while others, apparently equally developed, do not, is more difficult to understand. We know that in many similar cases pregnancy has gone on and delivery taken place, while in others a spurious labour has occurred at term, and it is to this class of case that we must look for an explanation of some of the recorded cases of lithopedion, where in many cases the foetus has been carried for years. It would appear also that many of the cases recorded as examples of intra-ligamentous pregnancy which have gone to term, really belong to this class too. The anatomical details of most of these cases that I have been able to refer to in the literature have been indefinite, and details of the exact relationship of the round ligaments to the gestation sac, which is of course

the most important guide, are conspicuous by their absence.

Another point of interest illustrated by this specimen is the fact that there is apparently no direct communication between the pregnant cornu of the uterus and the vagina, so that here the spermatozoa must have passed up the other horn of the uterus and through the right tube and been carried through the peritoneal cavity to the left tube, constituting an example of the so-called external migration of the spermatozoa or of the ovum. The way in which the tubal wall is actually eaten through is well shown in two other specimens which I exhibit to-night. The first is a case of tubal pregnancy which I removed from a patient a week ago. This girl walked into the hospital, saying she had been losing for a month, and thought she was having a miscarriage. She had had no pain till shortly before admission, but on opening her abdomen two hours later the pelvis was full of blood, and bleeding was going on actively from the rupture in the tube wall. The second specimen also shows the same condition, and is of interest from the fact that this patient had a ruptured right tubal pregnancy operated on at the Adelaide Hospital two years ago, and this specimen—the left pregnant tube—was removed by Dr. Morris at Port Adelaide this month. Dr. Morris tells me that this patient diagnosed her pregnancy as being “outside the womb” before rupture actually took place.

Another class of case which may be mentioned in discussing ectopic gestation is the so-called spurious extra-uterine gestation. We know that cases of apoplexy of the ovary, *e.g.*, bleeding from corpora lutea, torsion of the pedicle of a hydrosalpinx with effusion of blood as a result of rupture of a vein in broad ligament or on the surface of a tumour, such as the case of a fibroid recorded by Dr. J. A. G. Hamilton a few years ago, may cause symptoms suggestive of a ruptured ectopic, and on opening the abdomen and finding free blood make one think at once of this condition. But there is another condition of which the pathology is not so definite and which has been described, especially by Pfannensteln and Freund, as a cause of pelvic intra-peritoneal hæmorrhage, and which resembles extra-uterine pregnancy very closely. I refer to hæmorrhage from the tubal mucosa associated with chronic tubal disease, and one case on whom I operated 18 months ago I had perforce to put down to this cause.

This was a single girl, who had had menorrhagia for over a year and whose abdomen I opened because of a bilateral pelvic swelling, which proved to be the two tubes filled with stale, clotted blood, some of which had leaked through the ostium of the left tube and formed a hæmatocele in the pouch of Douglas. I was very doubtful about the diagnosis, though as far as one could tell the patient was, like Cæsar's wife, above suspicion. Microscopic examination of sections through both tubes failed to disclose villi or anything suggestive of pregnancy, but merely evidence of chronic salpingitis.

One is apt to put all these cases of pelvic hæmorrhage down to ectopic gestation, just as a few years ago, before the frequency of this condition was realised, many cases of real ectopic gestation were regarded as being due to other causes.

As illustrating how frequent the condition of ectopic gestation is, and how one often gets a run of similar cases in close succession, a short time ago I operated on four cases of ruptured ectopic gestation in five consecutive weeks.

Another well-recognised but rather unusual condition, of which I have had one example, is a combined intra- and extra-uterine gestation. In this case I curetted away some decomposed placental tissue from a patient who gave the history of having passed a foetus about three inches long 12 days before admission to the hospital. She had a swelling on the right side, which I took to be inflammatory, but on opening the cul-de-sac was surprised to find a large quantity of free blood in the pouch of Douglas. I opened the abdomen and removed a tube containing a foetus of about seven or eight weeks' gestation. The uterine contents had been disposed of, but I had no doubt that it was definite placental tissue which I had curetted from the uterus.

(Read before the South Australian Branch of the British Medical Association)

ECTOPIC GESTATION.

By Melville Jay, L.R.C.P. (Lond.), Adelaide, S.A.

DURING the past quarter of a century an enormous number of lives have been saved through correct diagnosis and early operative interference in cases of ectopic gestation, which, prior to this, would have been treated by the expectant method and allowed to die.

All of us can recollect a large number of cases which were classified as "pelvic," hæmatocele, parametritis, perimetritis, etc., without any idea of their origin; and it is curious that the results of post-mortem examinations did not call the attention of surgeons and gynæcologists more forcibly to the condition of ruptured tubes, etc. As a student I was taught that the condition of extra-uterine pregnancy was extremely rare, difficult to diagnose, and when it did take place death was almost certain to occur.

Playfair, who was one of the recognised authorities in gynæcology, in the third edition of his work on "Midwifery," published in 1880, says: "The termination of tubal pregnancy, in the immense majority of cases, is death, produced by laceration giving rise either to internal hæmorrhage or to subsequent intense peritonitis." He further remarks: "The possibility of diagnosing tubal gestation before rupture occurs is a question of great and increasing interest, from the fact that, could its existence be ascertained, we might very fairly hope to avert the almost certain fatal issue which is awaiting the patient. Unfortunately, the symptoms of tubal pregnancy are always obscure, and too often death occurs without the slightest suspicion as to the nature of the case having arisen. If the diagnosis were quite certain, the removal of the entire Fallopian tube and its contents by abdominal section would be quite justifiable, and probably would neither be more difficult nor more dangerous than ovariectomy. As yet, however, the uncertainty of the diagnosis has prevented the adoption of the practice." He ends up by saying: "The alternative is death, and hence any operation which would afford the slightest hope of success would be perfectly justifiable. I cannot, therefore, agree with those who hold that because the chances of success are so small the operation should not be tried; and I do not doubt that it will yet fall to the lot of some one, by this means, to snatch a patient from the jaws of death, and still further to extend the successes of abdominal surgery."

This was written only 27 years ago. Nowadays one is constantly on the lookout for cases of extra-uterine gestation, and in the large majority of cases, where rupture has taken place and where the classical symptoms—"amenorrhœa, symptoms of pregnancy, sudden sharp pain with syncope and rapid pulse, and metrorrhagia"—are present,

diagnosis is easy, and if operative interference is not delayed the results are, as a rule, eminently successful. But, in addition to this, we sometimes have the opportunity of examining cases prior to rupture, and if one feels an elongated, sausage-shaped mass resembling a distended tube, not so tender, but a little more boggy and vascular than a hydro- or pyo-salpinx, extending outward from the cornu of the uterus, accompanied by a softened and patulous cervix and some enlargement of uterus, and other symptoms of pregnancy coexisting, one at once is suspicious of an ectopic gestation, and either operates or keeps the case under close observation. But, unfortunately, these cases do not, as a rule, come under our notice until rupture has taken place, and frequently when the medical man is called in the patient is *in extremis* from hæmorrhage. It is a very good plan to make a rule always to examine cases with any irregular symptoms of pregnancy with a view to the presence of an ectopic gestation. It is chiefly because we are constantly on the watch for this condition, together with our improved methods and means of examination, that so many more cases are correctly diagnosed now than formerly.

The following cases occur to me as presenting some points of interest:—

Several years ago I was called to see a Miss B.—a strong, stout, healthy young woman, with the following history: She had always experienced excellent health. She became pregnant and placed herself in the hands of an abortionist, who had operated upon her a fortnight prior to my seeing her. She informed me that the fœtus and placenta had come away ten days before, and the discharge had gradually died away. On examining her I found the uterus firmly fixed in what I supposed to be an extensive inflammatory exudation filling the whole of the left pelvis, and extending above the level of the umbilicus. No uterine discharge. Complete rest, hot injections, vaginal and external applications had no effect in relieving her. Drs. Hamilton and Way saw the case several times in consultation with me, and about six weeks after the onset of her trouble I made an exploratory incision into the hardened mass, which by this time reached to the lower ribs, and appeared to be presenting in the left lumbar region—the point of incision. Nothing was removed but a large amount of solid matter, grey in colour, evidently altered

blood-clot. A few days after, when exploring the wound with my finger, I felt what appeared to be a mass of sharp points, and with a pair of forceps I drew out the skeleton of a three-month foetus, the ends of the ribs creating sharp projecting points. I regret to say that the diagnosis of extra-uterine gestation was made, or rather forced upon me, too late, as the patient eventually died of exhaustion. In this case I was misled by the history. Evidently what had been mistaken for the foetus and placenta was the uterine decidua, unless it was a case of double pregnancy. I must remind you that the case occurred many years ago, when we did not open the abdomen so readily as in the present day.

Mrs. T. showed symptoms of pregnancy for the second time, her first confinement having been quite normal. In the third month, feeling some pain in left side of pelvis, she sent for me, and on examination I found the uterus enlarged, cervix soft and patulous, a pyramidal-shaped tumour, apex outwards, with a boggy feeling, lying in close contact with the left side of uterus, with all the usual symptoms of pregnancy present. I diagnosed the case as one of tubal gestation, and called Dr. Way in consultation. He agreed with the diagnosis, but during the course of his examination, after considerable hesitation, he passed a sound into the uterus, finding the cavity much larger than he had expected. Fearing ordinary uterine pregnancy, we prescribed complete rest, opiates, etc. During the following night the patient miscarried, and a 2½-month foetus and decidua came away. All went well until the fourth day, when symptoms of septicaemia set in with high temperature. The mass on the left side of uterus became tender and eventually suppurated, and opened through a large slough in the vagina, alongside the cervix, requiring prolonged treatment by drainage, douching, etc., before recovery was complete. The presence of the foetal structures in the discharge of course proved the presence of an ectopic gestation; otherwise one would have confounded it with a ruptured pyosalpinx, complicating pregnancy. This patient has since passed through two normal confinements.

A case, unique in character, which I brought before the Society some years ago—the specimen is on view this evening—might be classed as one of ectopic gestation. A year after the birth of her first child—the

confinement presenting no abnormalities as far as I could gather from the medical man who attended her—she had a miscarriage, and I found while curetting her a firm mass attached to the left side of the uterus. A few months after she came to me because of constant vomiting, and I found the mass he enlarged considerably, the uterus slightly enlarged and pushed to the right. I operated and removed what I described as a pedunculated secondary uterus—really an unusual form of “uterus bicornis unicollis”—containing a three-months foetus, with one ovary and tube attached, leaving a normal uterus, ovary, etc. Dr. Newland has since delivered her of a full-term child.

Early this year I was called to see a Miss G., and found her suffering from extreme pain in the pelvis, especially on left side, with some uterine hæmorrhage, and a history of six weeks' pregnancy. I thought it was an ordinary case of miscarriage, as she had been taking quantities of drugs, etc. I sent her into private hospital, and under an anæsthetic examined her, found the uterus enlarged, but containing nothing but a little blood-clot and débris; no mass to be felt, but there was a general fulness all round the uterus and indistinct fluctuation in Douglas' pouch. She improved for a day or two and then became rapidly worse, collapsed with rapid pulse, tympanitis and varying temperature. Dr. Hamilton saw the case with me, and advised an exploratory operation, but, unfortunately, I could not find any of her relatives until late on the following day, when she was apparently in a hopeless condition. I did a posterior colpotomy, and evacuated a quantity of dark fluid blood. Her condition was too bad to attempt any prolonged examination or interference. She rapidly improved, but on the fourth day had a return of her symptoms, with a great amount of tympanitis, hiccough and jaundice. I again thoroughly opened up Douglas' pouch and drained. From this time she made an uninterrupted recovery, and now appears in the best of health. She was very stout and difficult to examine satisfactorily. I came to the conclusion this was a case of tubal gestation with early rupture, and though it terminated satisfactorily I would not advocate operating in these cases otherwise than by the abdominal route.

In the *New York Medical Journal* of June, 1875, Dr. Thomas, of New York, recorded a case which created a great amount of dis-

cussion. The report said: "He saved the life of the patient by a bold and judicious operation. He opened the cyst from the vagina by a platinum knife, rendered incandescent by a galvano-caustic battery. Through the opening thus made he removed the foetus." Though septic symptoms supervened, the patient recovered, and the case was spoken of as a brilliant success.

I have only met with one case where tubal gestation had taken place on both sides, with an interval of about two years. Though the hæmorrhage was very great on both occasions the patient made an excellent recovery, and is still living and in good health.

In no class of case does a woman more nearly approach death than in ruptured ectopic gestation; but operative measures combined with the use of saline injections, intravenous and otherwise, enable us in almost every case to literally snatch the patient from the jaws of death; and all of us, I suppose, have met with cases which were apparently hopeless, but under the recognised lines of present-day treatment have been restored to perfect health. In fact, I think the marked improvement in the diagnosis and treatment and the marvellous results of operation in these cases afford one of the most striking examples of the wonderful strides surgical science has made during the past quarter of a century.

(Read before the South Australian Branch of the British Medical Association.)

THE INCIDENCE AND FATALITY OF HYDATID DISEASE.

By C. MacLaurin, M.B. (Edin.), Sydney, Hon. Surgeon
to Royal Prince Alfred Hospital and the Royal
Hospital for Women, Sydney.

I WOULD wish this paper to be regarded rather as a brief summary of an immense subject than as a finished work. I recognise that there are several disputable statements, which space forbids me to discuss fully if the Association's time-limit is not to be exceeded. Some of these would need a whole chapter to themselves if all the evidence for and against were to be stated. The material discussed consists of 420 cases from the records of Royal Prince Alfred Hospital and my private practice, and the vital statistics of New South Wales from 1886-05.

Prior to 1885 hydatid disease hardly figures in the death-rate; in 1880 it only caused three deaths. There is some reason to sup-

pose that there has been a real increase, which is not entirely due to improvement in diagnosis, because, as a rule, it is not a difficult disease to diagnose. The most obscure cases are those in the brain, which are here uncommon.

The number of deaths has, in the period under consideration, shown a marked tendency to rise; but the incidence per million of the population is somewhat variable. The actual deaths rose from 21 in 1886 to 58 in 1899, when they reached their maximum; since then there has been a decline, which has not, however, been so steady as one could wish. It is noteworthy that the great increase in deaths from 1886-99 occurred in spite of the improvement in surgical technique which was made during that time. We shall see later on that there has been a considerable improvement in the results of operations in the period under observation. More important than the actual number of deaths is the mortality per million of the population, which gives the true import of the disease.

In chart I. I have plotted out the incidence of the disease, and it is noteworthy that there is a rather wide variation in the death-rate from year to year. Thus, it was at its minimum in the years 1886, 1888, and 1902, when it was only 21 per million; and it rose to its maximum in 1896, 1898, and 1899, when it reached the considerable figure of 44 per million. It will be observed, moreover, that there was a distinct epidemic of hydatids in the period from 1893 to 1899 inclusive. In these seven years the mortality averaged rather more than 40 per million, as compared with about 25 per million in the years before and after.

It occurred to me that it might be possible to correlate these figures with the amount of rainfall at different periods, and I have accordingly plotted out on the chart a curve giving that information. It is true that the rainfall here given is that of Sydney, but a study of the weather reports will show that over a given period the amount of rain at Sydney is fairly representative of the character of the seasons in the country generally. We thus see that there was a period of wet seasons from 1887 to 1893, in which the Sydney rainfall was from 50 to over 70 inches, i.e., seven wet years. Six years after the wet seasons commenced we began to get a considerable rise in the death-rate from hydatids, and this continued for seven years. In other words, we have here a period of seven wet

years followed by a period of seven years in which there is an epidemic of hydatids.

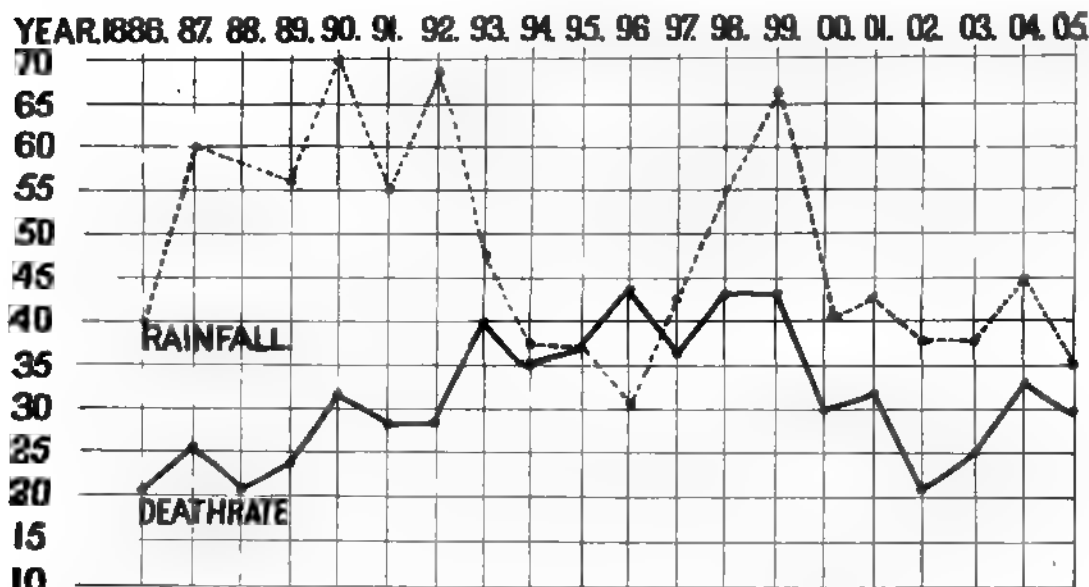
The year 1894 showed a rainfall at Sydney of only 37 inches, which is much below the average, and we find that six years afterwards, in 1900, the death-rate from hydatids dropped from 44 per million to 30 per million. In 1896 the rainfall was 32 inches; in 1902

a distance of six years, with considerable accuracy.

It may be that these figures are merely coincidences, but it seems to me not unlikely that there is an actual connection between the rainfall and the hydatid death-rate, and one might venture to put forward the following explanation: In dry seasons in the

CHART I.

SHOWING DEATHS FROM HYDATIDS PER MILLION OF POPULATION ALIVE, AND RAINFALL AT SYDNEY FOR EACH YEAR.



The black line represents the Death-rate per million; the dotted line the Rainfall at Sydney.

the hydatid death-rate was 21 per million. The years 1894 to 1897 were on the whole four dry years, and we find that, after a lapse of six years, they are followed by four years 1900 to 1903, in which the hydatid mortality is low. In 1898 the rainfall took a sudden leap upwards, and six years later there is a corresponding rise in the death-rate, which jumps from 25 to 34. It must be remembered that a death-rate of 34 per million in 1904 represents a greater number of cases than would have been the case a few years previously. There can be no reasonable doubt that aseptic surgery has saved many who would formerly have died of hydatids. It is probable, therefore, that the mortality in these latter years represents a greater amount of actual disease than it would have represented 20 years ago. If this chart be carefully studied it will be observed that the death-rate curve follows the rainfall curve at

country districts vegetables are comparatively scarce, but in wet seasons, when the interior is a fruitful garden, they are plentiful.¹ If we are to believe that infection is common from eating raw vegetables, or from preparing them for the table, it seems to me extremely probable that the figures here given are susceptible of this simple explanation.

It has, I believe, generally been held that infection was most common through the drinking water; and it was therefore considered, with little substantial evidence to support the belief, that hydatid infection was most common in time of drought, when the water was most likely to become contaminated. This theory is certainly not in accordance with the actual facts as shown in chart I.

The vegetable theory is, of course, by no means new, as it is pointed out by Verco and Stirling, in Clifford Allbutt's System, that infection by this means frequently occurs.

CHART II.
AGES AT DEATH OF FIFTY EIGHT FATAL CASES.

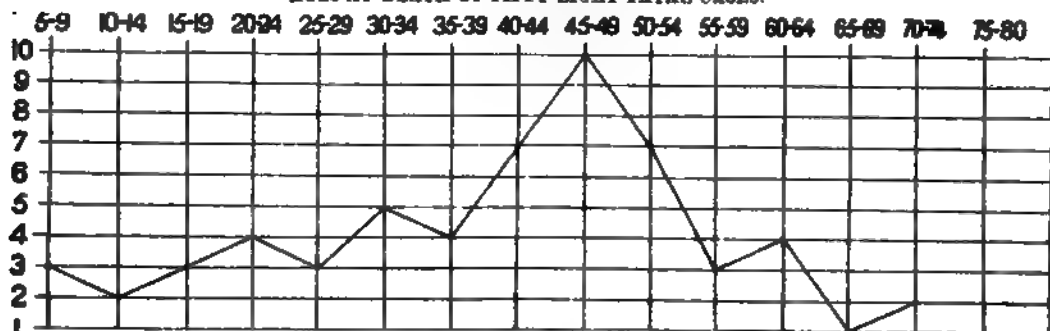
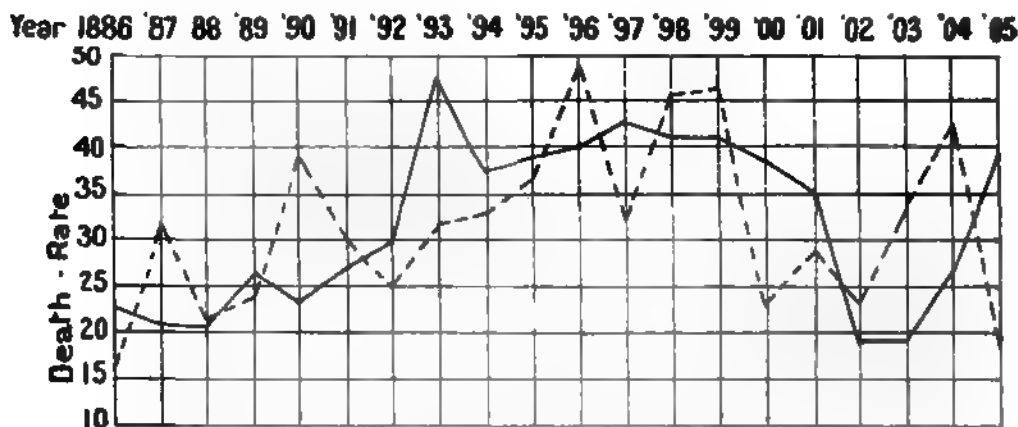


CHART III.
SHOWING PROPORTION OF DEATHS FROM HYDATIDS PER MILLION OF POPULATION LIVING.



The black line shows the Death-rate of Males and the dotted the Females per million alive of each sex.

Finsen, quoted by Davies Thomas, states that the occupation of cooking renders women particularly liable to hydatids, and it is reasonable to suppose that this increased risk is probably due to infection from vegetables.

A striking point in this connection is the statement of Davies Thomas that the duration of the disease from the time that the ova are swallowed till it makes itself manifest is probably about five or six years. It is evident from this clinical observation that the results of a widespread infection will not make themselves manifest in the mortality returns till the lapse of about six years; and this fact appears to be of considerable significance in connection with the rainfall and mortality returns here given.

The period is too short for any exact conclusion to be drawn; but the facts are at all events suggestive, and probably the lapse of a few more years will settle the question.

We cannot search any further backwards, because the disease appears to have been comparatively uncommon till about 20 years ago.

Ages at death.—In 58 cases I have been able to obtain the ages at death, and this information has been depicted on chart II. It will be noticed that there is a steady rise from childhood to a maximum between 40 and 50; in fact, nearly half the deaths occurred between the ages of 40 and 54. If we compare the number of deaths with the number of people living in childhood and middle age, we shall see how enormously greater the liability to fatal attack becomes as youth departs.

Sex incidence as regards mortality.—The total number of deaths in New South Wales during the period under consideration was 821, of whom 432 were males and 379 females. The inference that males are more subject to the disease than females is not,

however, just. It is necessary to ascertain the number of deaths in proportion to the number of persons alive of each sex, and this has been done in chart III.

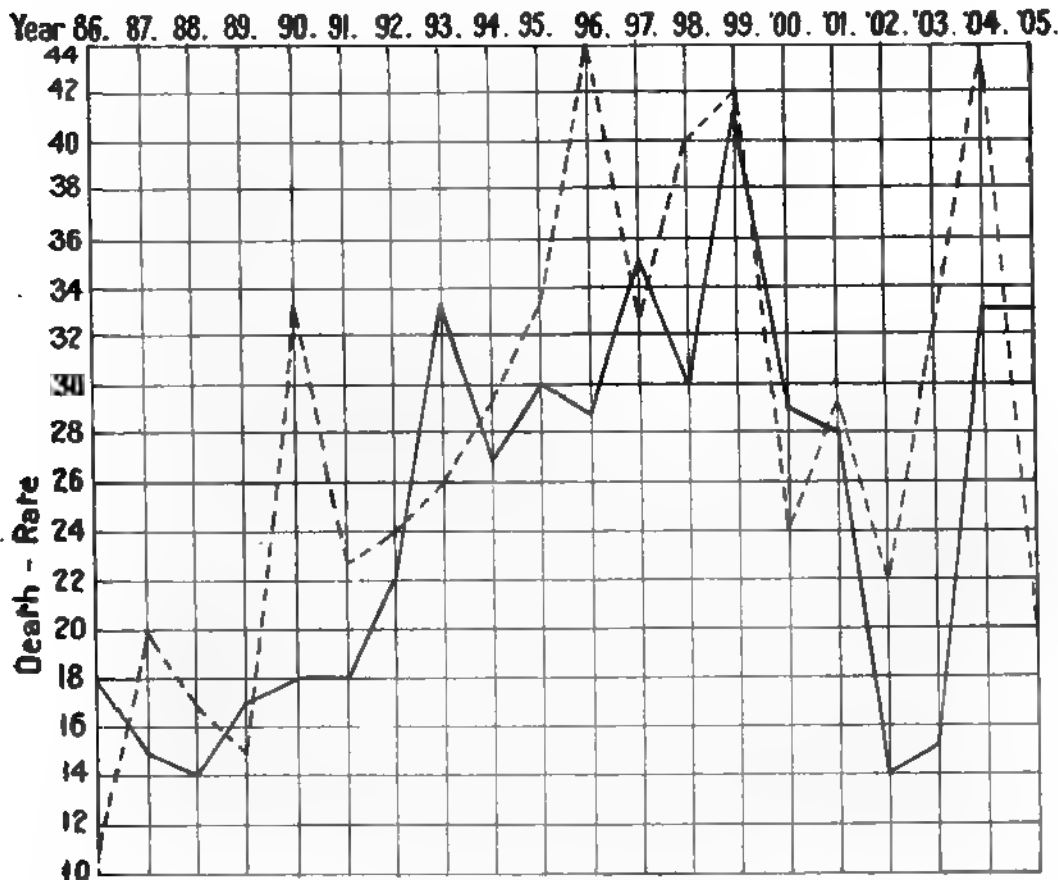
A study of this chart shows that the female deaths are on the whole rather more variable than the male. Thus in 1899 the female death-rate was 47 per million, but in 1900 it had fallen to only 24. In 1902 it was 24; in 1904, 42.

liable than women. This is certainly not the case in New South Wales. Sir James Graham also makes the same statement, but at that time the statistics were small in amount.

Chart IV., which represents the death-rate from hydatids per ten thousand of all deaths, is somewhat interesting. Only in five years is the rate larger for the males; in all the others the female death-rate preponderates.

CHART IV.

SHOWING DEATHS FROM HYDATIDS PER 10,000 DEATHS IN NEW SOUTH WALES FROM 1886 TO 1905 INCLUSIVE.



The figures on the left represent the number of deaths per 10,000 of all deaths. The black line the Males and the dotted line the Females.

The explanation of this greater variability is not clear. In nine years the female death-rate was greater than the male, but in ten years the male was the greater; only in one year were they equal. It is clear, however, that no greater liability to hydatid disease can be claimed for either sex. In this respect we must differ from Verco and Stirling, who consider that in this country men are more

From this one is tempted to infer that, when it occurs, hydatid disease is relatively more serious in women than in men. The average death-rate per million of the living population was, during the 20 years under consideration, 31.9 for males and 31.7 for females, or to all intents and purposes equal. In face of these figures I do not think it can be maintained that either sex is more liable than the other.

Organs affected.—The following 420 cases are studied from the records of the Royal Prince Alfred Hospital and partly from my own private practice. The positions of the cysts were :

Liver	..	..	267	63.4	per cent.
Spleen	..	..	4	.95	"
Peritoneum	..	..	74	17.8	"
Lung	..	..	66	15.4	"
Kidney	..	..	7	1.6	"
Brain	..	..	2	.47	"

These proportions show a somewhat different incidence of the disease from that described by Verco and Stirling :

Liver	..	..	..	68.6	per cent
Spleen	..	..	..	1.6	"
Thorax	..	..	..	19.	"
Kidney	..	..	..	2.5	"
Peritoneum	..	..	..	9.9	"

It will be observed that in our figures the percentage of liver cases is rather less, and that of lung and peritoneal affection is much more than in theirs. The proportions given by Fleming, of Edinburgh, in a series of 1862 cases collected from many countries are as follows :—

Liver	..	..	..	57	per cent.
Spleen	..	..	..	2.1	"
Peritoneum	..	..	..	1.4	"
Lungs	..	..	..	11.6	"
Kidney	..	..	..	4.7	"
Brain	..	..	..	4.4	"
Heart	..	..	..	1.8	"

The marked diversity of these results from those of Verco and Stirling and ourselves can only be explained by the probability that rare cases, such as hydatid of the brain and heart, are more likely to be published than the commoner varieties, such as infection of liver or peritoneum. It is doubtful, in my opinion, whether the brain is affected to the extent that would appear from these statistics. A homogeneous series like that of Verco and Stirling and our own is more likely to represent the true state of things than one made of cases culled from all the journals of the world.

Mortality.—Of the 420 cases, 44 died, a percentage of 10.4. If it be considered that these cases were all under the most favourable conditions, and were treated by some of the most skilled surgeons in the country, it becomes evident that visceral hydatid is a particularly serious affection. Nor does the actual mortality represent the true extent of the human suffering due to this terrible disease. Every one of these patients went through a grave illness ; many of them were permanently maimed, and were left with adhesions which have rendered life a burden to them ; some fell victims to phthisis, which

seized upon the opportunity to attack them. Many suffered from recurrence ; and the fact becomes forced upon one's notice, as one studies the records, that a man who has once had hydatids is more or less a threatened man for many years to come.

Annual mortality.—It is interesting to inquire whether the improvement in surgical technique has led to a diminution in the death-rate after operation. In dealing with comparatively small figures, such as are available to us, we must exercise caution, because a single death may cause an appreciable difference in the percentage mortality ; but none the less I think we may fairly claim a gratifying improvement. In 1896 the mortality stood at 16.7 per cent., and it showed a slight change for the worse till 1898, when it reached its maximum, with a percentage of no less than 20.9. Since then the tendency to improvement has been well marked, with the single exception of 1905, when the death-rate was 18.4 per cent. The course of the mortality is shown in chart V. In 1905 a run of bad abdominal cases sent up the death-rate unduly ; but if we take two periods, the first five and the last six years, we shall find that the average mortality for the former is 15.2 per cent., for the latter 6.1 per cent. It is difficult to conceive a more striking testimony to the effects of aseptic as opposed to antiseptic surgery.

Sex incidence of the cases.—Of the 420 cases 215 were males, 205 females. These proportions do not greatly differ from those of the sexes alive in the State.

Sex incidence as affecting the organs.—Some remarkable facts are shown :—

	M.	F.	M.	F.	
Liver	128	139	163	183	Abdominal.
Spleen	2	2			
Peritoneum	33	42			
Lung	46	20	53	22	Other organs.
Kidney	5	2			
Brain	2	0			

It will be noted that more females than males suffer from abdominal hydatids ; more males than females are affected in other organs.² The causes of this may, perhaps, be suggested. Havelock Ellis has pointed out that woman is essentially an abdominal, man a thoracic animal.

In woman the liver, though it is difficult to speak positively, is on the whole slightly larger proportionately than in man.³ In man the lungs are very much larger than in woman. It is obvious that the larger an organ is the more chance it has, *cæteris*

paribus, of being infected. We must also remember that in a man, with his powerful muscles and strong respiratory action, the circulation is carried on with greater vigour than in a woman; it is therefore likely that the embryos would be more rapidly swept through the portal system than in a woman, and thus the lungs would be more probably affected. The sedentary occupations of women are more likely to cause pelvic stasis than those of men. Thus we find that they are more subject to hæmorrhoids and constipation than are males; it is not therefore a matter of surprise that peritoneal hydatids so

Death rate according to site.—The following deaths occurred :—

Liver	18
Spleen	1
Peritoneum	11
Brain	1
Lung	13

To ascertain the relative mortality of each variety we must work out the percentage of deaths to the number of cases admitted of each variety :—

Liver	6·8 per cent.
Spleen	25 "
Peritoneum	14·6 "
Lung	19·5 "
Brain	50 "

CHART V.

MORTALITY FROM HYDATIDS IN ROYAL PRINCE ALFRED HOSPITAL FROM 1893 TO 1906 INCLUSIVE.



largely preponderate in them, the embryos remaining in the radicles of the mesenteric veins instead of being carried on to the liver.⁴

If we take the percentage of cases of each sex, the difference becomes still more striking. Here they are :—

	M.	F.
Liver	50·2	58
Peritoneum	10·7	20·5
Lung	21·4	9·7

In other words, women are twice as liable to peritoneal hydatids as men; and men are twice as liable to hydatids of the lung as women. Look at the matter in this way :—

	M.	F.
Abdominal	75·8 per cent.	89·4 per cent.
Other organs	24·4 "	10·6 "

These observations require testing by a wider induction than is at present available, but probably they are not far from the truth.⁵

We may disregard the death from hydatid of the spleen, as also the one that occurred from hydatid of the brain, which, as there were only two cases altogether, would represent a mortality of 50 per cent. This may be quite correct, but we have not sufficient evidence to go upon. The other figures, being based upon a large series, may probably be taken as reliable. We thus see that hydatid of the lung is the gravest; of the peritoneum next.

The mortality of these varieties is probably understated here, because a considerable number of the patients must die of remote complications. I have myself seen two cases in which phthisis developed subsequently to operation for lung hydatid, and one case of intestinal obstruction after peritoneal hydatid.

CONCLUSIONS.

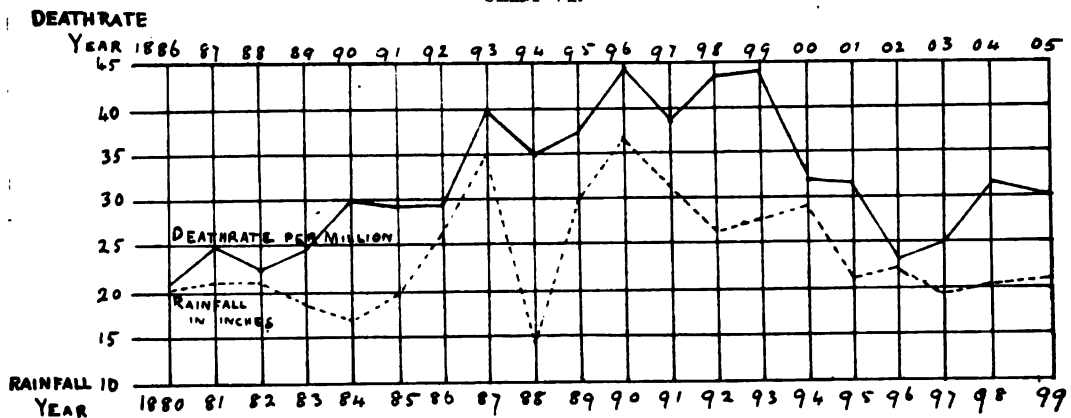
Hydatid disease was little noticed in New South Wales until about 25 years ago. There was a marked epidemic of hydatids in the seven years 1893-1899. This epidemic occurred six years after the beginning of a period of seven wet years, 1887-1893. It is possible that infection may be more common in wet seasons, owing to the fact that vegetables are more plentiful in the country districts; but this can only be settled by an experience extending over a longer period of time. The greatest mortality occurs in middle life; comparatively few children are affected. Males and females are affected in equal proportion to the numbers alive of each sex. The liver is more often affected than all the other organs put together; next comes the peritoneum, next the lung. The average

out the enormous mass of clinical material available in the records.

Addendum.—It was objected at the meeting that the rainfall in chart I was that of Sydney, while the death-rate was for the whole colony, and so it was unfair to compare the two. This argument seems to be not unreasonable, and I have been at some pains to ascertain how far it is applicable.

The rainfall at Sydney is after all that of the most densely populated area, and it is quite incorrect to suppose that hydatid infection is confined, or nearly confined, to the country districts. Out of 16 cases in which I have been able to trace the source of infection beyond doubt, seven were infected in Sydney, for they had never left the metropolis, one in the eastern district, one in the west, and seven in the central.

CHART VI.



mortality of hydatid disease, taken over a period of years under the most favourable conditions, is probably fully 10 per cent., but this has shown a tendency to decrease under the influence of aseptic surgery. Children are more likely to be affected in the liver than women, and these than men. Men are twice as liable as women to lung hydatid; women are twice as liable as men to peritoneal hydatid. These variations are probably due, firstly, to the differences in the relative sizes of the viscera; secondly, to the differences in the vigour of respiration and circulation in the sexes. The death-rate from hydatid of the lung is the greatest; next the peritoneum, then the liver.

I wish to thank Dr. Day, of the Royal Prince Alfred Hospital, and Dr. Lethbridge, of the Royal Alexandra Hospital, for the assistance they have given me in searching

It therefore follows that the conditions prevailing in Sydney and on the coast generally must largely influence the mortality.

I have, however, drawn out another chart, showing the mortality as compared with the average rainfall over the whole colony. It is to be read in a somewhat different manner from chart I. The dotted line represents the general rainfall from 1880 to 1899; the black line, the death rate from 1886 to 1905. Supposing that the average duration of a fatal case of hydatids is six years, the black line will represent the mortality due, on an average, to infection caused in the year of the dotted line immediately beneath it. Allowing for accidental variations due to the comparative smallness of the numbers, it will be observed that the two curves resemble each other in a manner which is at all events suggestive. Thus we have a period of low

rainfall from 1880 to 1885, accompanied by a low death-rate from 1886 to 1891, a rise in both in 1887 and 1893, and high rainfall from 1889-94, with high death-rate from 1895-99. From 1895 to 1899 there was a low rainfall, and from 1901 to 1905 there was a low death-rate.

It is remarkable that in this series of 20 years there are only two, 1888 and, to a less extent, 1894, in which the rainfall was not followed by a corresponding death-rate six years later.

I still venture to suggest, however, that it is really more fair to take the rainfall in the greatest centre of population, because if we admit figures from the sparsely settled west we are introducing an element of irregularity and uncertainty. Thus, the rainfall of Tibbooburra has as much influence upon the average rainfall of New South Wales as that of Sydney; but it stands to reason that such a small population cannot contribute so many cases as the great county of Cumberland. The whole question is extremely complex, and one should keep an open mind; but probably further inquiry will show that the foregoing results are somewhat more than coincidences.

I have to thank the Government Meteorologist for his assistance in this matter.

NOTES.

1. Note also that in dry seasons the ova are more likely to be desiccated than in wet. It is doubtful how much drying a hydatid ovum can stand.

2. In this very brief discussion I take for granted that the principal course of the embryo after leaving the alimentary canal is by way of the portal system. It is only fair to say that this is by no means absolutely proved; a great deal of work requires to be done before we can say exactly what happens. At all events the portal theory probably explains all the facts best, and certainly fits in well with the observations here recorded.

3. Havelock Ellis' "Man and Woman."

4. In 48 cases under the age of twelve the following were the sites affected:—Liver 36, lung 8, peritoneum 2, brain 2; that is to say, the liver cases numbered 75 per cent. of the whole number. But if we take the number of patients—for four were affected in more than one organ—we find that the liver was attacked in no less than 81·8 per cent., a much larger proportion than has been noticed in any series of adults, whether male or female. In children the liver is considerably larger than in adults, and it seems reasonable to believe that this preponderance in size is a strong determining factor in its unusual liability to attack. Furthermore, no case of lung hydatid occurred till the age of six, when the liver begins to assume adult proportions.

5. It may be suggested that the preponderance of lung hydatid in men is due to their outdoor occupations, which bring them more into contact with dust, and that, this being inhaled, and containing ova, the resulting embryos would directly affect the lungs. One would keep an open mind on the subject, but is there any real evidence that hydatid infection may occur except by way of the portal system? And for how long will ova desiccated in a dusty wind retain their virulence? The whole subject urgently requires further study.

(Read before the New South Wales Branch of the British Medical Association.)

The movement for the establishing of a children's hospital at Perth has taken active form again. Several meetings have been held and a committee formed. It has been decided to begin the erection of the building immediately.

RINGWORM AND ITS TREATMENT.

By William J. Munro, B.A., M.D., etc., Hon. Surgeon
Lock Ward, Royal Prince Alfred Hospital, Sydney.

GRUBY, between 1841 and 1844, described three parasites in the tinea of the child and mentagra of the adult. Bazin described one parasite as the cause of trichophyton lesions of whatever kind, and this organism was called the "Trichophyton Tonsurans."

Besnier's two pupils, Juhel-Renoy and Balzer, found very large spores in some varieties of the disease, and attributed their excessive growth to a very favourable soil. Unna, Niche, and Furthmann, in 1891, however, isolated five varieties from twelve cases. At this time Besnier recognised a large and small spored variety, and at his suggestion Sabouraud undertook their investigation.

Trichophytions do not comprise only a single variety of parasite, but include a large number of species. Those usually found in cases occurring during childhood are the Microsporon Audouinii Ectothrix, or small-spored ringworm, and the Trichophyton Tonsurans of Malmstein, the Macrosporon Endothrix, or large spored. The "Kerion of Celsus" and parasitic Sycosis are produced by different varieties.

The Microsporon, according to Sabouraud, is the most common; in our experience, however, the larger variety seems to occur almost, if not quite, as frequently. When the disease is of the former variety it is characterised by the presence of dry, scaly patches, circular in shape. The hair is thinner than that normally occurring on the rest of the scalp, and in their general appearance some appear like the natural hairs and others are broken off a little beyond their point of exit. The hair is frequently discoloured or grey, and is often covered for a short distance with a grey sheath. There may be one large patch or a number of smaller ones, which may coalesce and eventually invade the whole scalp. When untreated it possibly lasts from two to seven years, terminating at the age of immunity of 15 years.

The disease begins as a macular papule, with an erythematous border, but it soon becomes scaly, and the hairs on it are brittle. When one wishes to examine the diseased hairs under the microscope, it is necessary to place them on a slide, drop liquor potassæ on them, cover with a glass cover,

and warm just until bubbles begin to appear. A $\frac{1}{4}$ to $\frac{1}{2}$ inch objective with a very small diaphragm aperture should be used. The hair will be found to be encased in a sheath consisting of fine, highly refractile polygonal spores.

In the large spored variety it is noticed that the hairs are embedded in a mass of heaped up scales, which present a crust-like aspect, and on removing them the hairs will be seen to be projecting from the under surface. The hairs on the skin are curved, and often covered with horny layer. When they are prepared in the same manner as those attacked by the small spored variety, and examined microscopically, they will be found to be filled more or less completely with chains of large spores.

Clinically, in this kind of ringworm small patches are seen containing few hairs (5 to 15); large patches are rare.

Diagnosis is not unfrequently difficult, and auto-inoculation may be necessary to make a correct one. Both parasites grow readily on peptone agar with 4 per cent. glucose. The microsporon colony appears as a white felted flat mass of fine threads. That of the macrosporon has a raised crateriform mass in the centre.

Treatment.—The older method was to remove the infected hairs and those for a centimetre around the patch by epilation, repeating this every 15 days, and the application of antiseptics to the diseased patch and the whole of the scalp. The epilation is difficult to do satisfactorily, because the hairs break easily, and one is apt to leave part behind which remains as a centre of infection. Furthermore, young children do not, as a rule, bear it well. Many antiseptics have been used, amongst which may be mentioned oleate of copper (1-8 ointment), carbolic acid, salicylic acid, tincture of iodine (1-5, 1-10), etc. One might hope by these means to obtain a cure in 10 months, but, on the other hand, the duration of the disease is often indefinite, frequently terminating at about the fifteenth year, or at the advent of the natural immunity.

Sabouraud recognised that the cure of ringworm by antiseptics was, and possibly always would remain, an impossibility, and for this end one must depend on means to remove the infected hairs in their entirety. He first tried toxic means, *e.g.*, acetate of thallium, but though thereby a perfect

alopecia can be produced, owing to its poisonous properties he was compelled to discontinue it.

Freund, as early as 1896, and a number of others since that time, tried the X-rays; but the difficulty was to measure the dose so that enough was given to cause the hair to fall, and not enough to produce a permanent alopecia. To measure the dose Sabouraud finally devised his pastille of platino-cyanide of barium. This is placed at $7\frac{1}{2}$ c.m. from the centre of the tube, thus being half the distance between the skin and the light. When it has acquired a particular brown tint, then alopecia without radio-dermatitis will follow. The hair begins to fall from the fifteenth to the twentieth day, and has completely fallen about the thirtieth. The skin is disinfected by the daily use of, say, 1-5 solution of tincture of iodine. The hair commences to grow in $2\frac{1}{2}$ months, and has completely regrown in five months, when, as a rule, the disease is cured.

(Read before the New South Wales Branch of the British Medical Association.)

RINGWORM AND ITS TREATMENT: TECHNIQUE OF X-RAY TREATMENT.

By L. Herschel Harris, M.B., Ch.M. (Syd.), Hon. Assistant Surgeon, Sydney Hospital; Hon. Skiagrapher, Sydney Hospital; Hon. Skiagrapher, Royal Alexandra Hospital for Children, Sydney.

As far back as 1896 it was observed by several operators that prolonged exposure to the X-rays produced alopecia. The first case to attract the attention of Sabouraud occurred at this time, when Freund, of Vienna, was trying radio-therapeutics on all the diseases of the skin in succession. It was in a young girl who had remained for several hours exposed to an X-ray tube as the subject of a public demonstration at a music hall. The whole of the occipital segment of the head was denuded, and was followed four months later by a complete re-growth of hair. After this the X-rays were employed in various conditions requiring epilation, notably ringworm, but the methods were so haphazard and the results so uncertain that for a considerable period their use was abandoned. Indeed, in several instances severe and painful accidents happened following this indiscriminate use of so powerful a therapeutic agent, and not infrequently was it noticed that permanent alopecia resulted. However,

thanks to the perseverance and ingenuity of Professor Sabouraud, of St. Louis Hospital, Paris, we are now enabled with precision and certainty to apply a dose of X-rays sufficient to produce epilation within a certain period, followed by re-growth of the hair a little later on, and this without any reaction or other inconvenience being produced. Numerous attempts had been made to devise meters which would measure a requisite dose of X-rays, but these were more or less unsatisfactory, unreliable, and very expensive. In 1904, Sabouraud, in conjunction with Noiré, invented an X-ray radiometer, and thousands of these are now used all the world over with astonishing success. The pastilles of Sabouraud and Noiré, as they are termed, consist of small circular pieces of Bristol paper coated with an emulsion of platino-cyanide of barium in collodion with acetate of starch. When fresh, these pastilles present a greenish-yellow colour known as "Tint A." After exposure to the X-rays, the colour gradually changes, altering to a brown, until the "Tint B" is reached. At this juncture the rays must be cut off, and if all proper precautions be taken the correct dose will be administered.

Most of the failures in using these pastilles have been due to the operators not following closely the instructions, and I may be pardoned for briefly summarising them:—1. The work must be performed in a dark room, as daylight affects the pastilles. 2. The anode of the tube must be exactly 15 centimetres from the part under treatment, with the pastille exactly midway, i.e., $7\frac{1}{2}$ centimetres from the anode. 3. To enable this procedure the tubes must be small. Sabouraud employs special ones made by Müller and Drisler, with the bulb 8 centimetres in diameter. In any case the pastilles ought to be placed at a distance of at least $2\frac{1}{2}$ centimetres from the glass of the bulb, otherwise the heat generated by the glass wall will affect the pastille and increase its colouration. 4. When examining the pastille, during the sitting for change in colour, a rapid inspection must be made, otherwise it will slightly recover its original "tint." 5. The comparison of "tints" must always be made in daylight with an even illumination. 6. If the "Tint B" be exceeded, permanent alopecia may result, or even a severe reaction, producing an X-ray burn. 7. If the "Tint B" be not reached, epilation will either not result, or only partially so.

The question has often been asked, "Can these pastilles be used more than once?" The answer is "Yes." They can be used over and over again, provided that during the intervals they be exposed to strong sunlight until the original "Tint A" be restored. Although these pastilles are made use of by hundreds of operators, strange to relate not any two obtain similar results as to time of exposure. The first consideration is the tube. It is generally agreed that the harder tubes are more suitable than the softer ones. By means of Benoist's radio-chromometer this is measured with great precision. The instrument is really a sort of spiral staircase with 12 aluminium steps, each succeeding one being thicker and thicker, and the centre is composed of a thin sheet of silver. If a tube in action be examined with this radio-chromometer it will be found that one of the steps will have the same illumination as the base. If, for example, it were the sixth step it would be said that the tube produced "X-rays No. 6 on the radio-chromometer of Benoist," and so on. Tubes registering from 7 Benoist upwards give the best results.

The apparatus employed by Sabouraud consists of a three-quarter horse-power dynamo, which works a static machine with 12 discs of 75 centimetres diameter, with a speed of 950 revolutions a minute. The current is transmitted by two conducting wires well insulated to the two poles of the tube. In the circuit of these conductors is placed a spinter-meter for measuring the spark length of the tube. The tubes are surrounded at a distance of three centimetres from their wall by an incasement in strong sheet-iron, lined on its inside by a layer of vulcanite. On the side opposite the point of emergence of X-rays this covering is pierced by a hole to which a series of localisers are adapted at will by means of a catch. They are simply metallic cylinders, all of the same length but with different diameters; their variation in size is necessitated by the variable dimensions of the patches on the scalp which it is desired to expose to X-rays. There is a clip for holding the pastille exactly midway between the anode and the end of the cylinder. The Benoist of the tubes used varies from 10 to 12, and the time occupied in producing "Tint B" varies from 10 to 15 minutes. Sequeira, of the London Hospital, uses a much more complicated apparatus, but with remarkable results. He employs a 15-inch coil supplied

with a direct current from the main, with a voltmeter and ampèremeter in the primary circuit. The voltage employed at the London Hospital is 60-62 with the ampèremeter at 5. The interruptions are regulated, and the best results are obtained when numbering 500 or 600 a minute. The tubes employed correspond to 6 or 7 Benoist. The spark gap is measured, and from 12 to 15 centimetres is the length preferred. The softer tubes are not used. In the secondary circuit is interposed a milliampèremetre, and generally the current is kept at 0.7 milliampère. With the above conditions the length of time occupied in changing the pastille is 16 minutes. Since Sequeira published his first results last year, when he reported on 200 cases, his method has slightly varied, and in a communication to me, dated March of this year, he states that he has treated 800 cases at the London Hospital, the time occupying only six minutes. In the whole series there were only two failures, due to no fault in the technique.

A. E. Dean, scientific instrument maker, of London, informs me that the extra rapidity is gained at the expense of the tubes, which are made specially for the purpose. He states that the "Tint B" is the result of a certain definite quantity of X-rays upon the reagent. This quantity has an electrical equivalent, and is capable of measurement which their instrument does, from which we find the constant, for example, 60,000—which is the quality Benoist x by the number of discharges, viz., if the quality of ray emitted be equal to 6 Benoist, 10,000 discharges will make $6 \times 10,000$ or 60,000—but whether it be 60,000 or 100,000 or 6000, it is a *sine qua non* that all the discharges be alike. Thus it will be seen that at the London Hospital they must use tubes whose quality is 10 Benoist, because they achieve the maximum result in six minutes, the machine going at 1000 revolutions per minute. Therefore, any multiple of 60,000 decided by the radio-chromometer decides the number of like discharges necessary to bring you into the neighbourhood of definite change on the pastille.

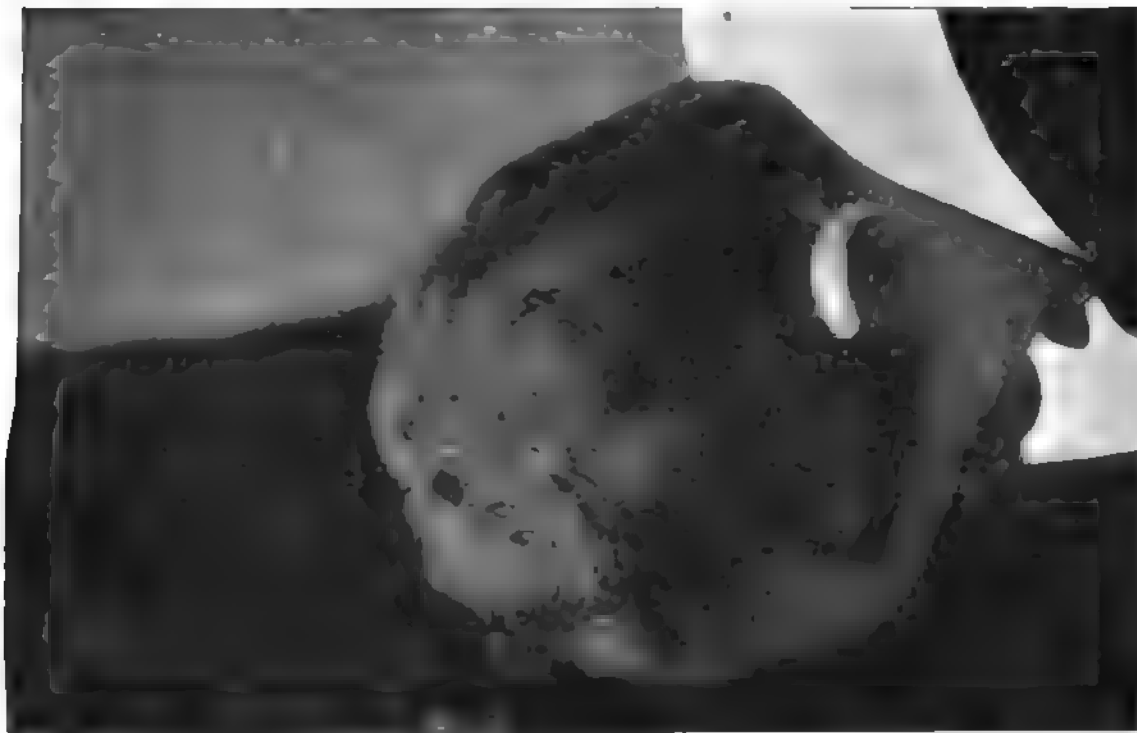
Various methods have been employed for mapping out the areas to be acted upon, all more or less unsatisfactory. Care must be taken that the areas do not overlap, otherwise permanent alopecia or even burning may result. Likewise they must not underlap, thus leaving affected areas unexposed. The curve of the skull must be taken into consideration, and not too large an area treated at a time. When treating a convex area, the

centre, of course, gets a larger dose than the periphery. The general plan is to map the skull out in circles, triangles or squares, and to mark with an aniline pencil the parts rayed. All surrounding areas are covered with suitable protective, such as lead. In this way the whole surface of the skull can be treated without any overlapping.

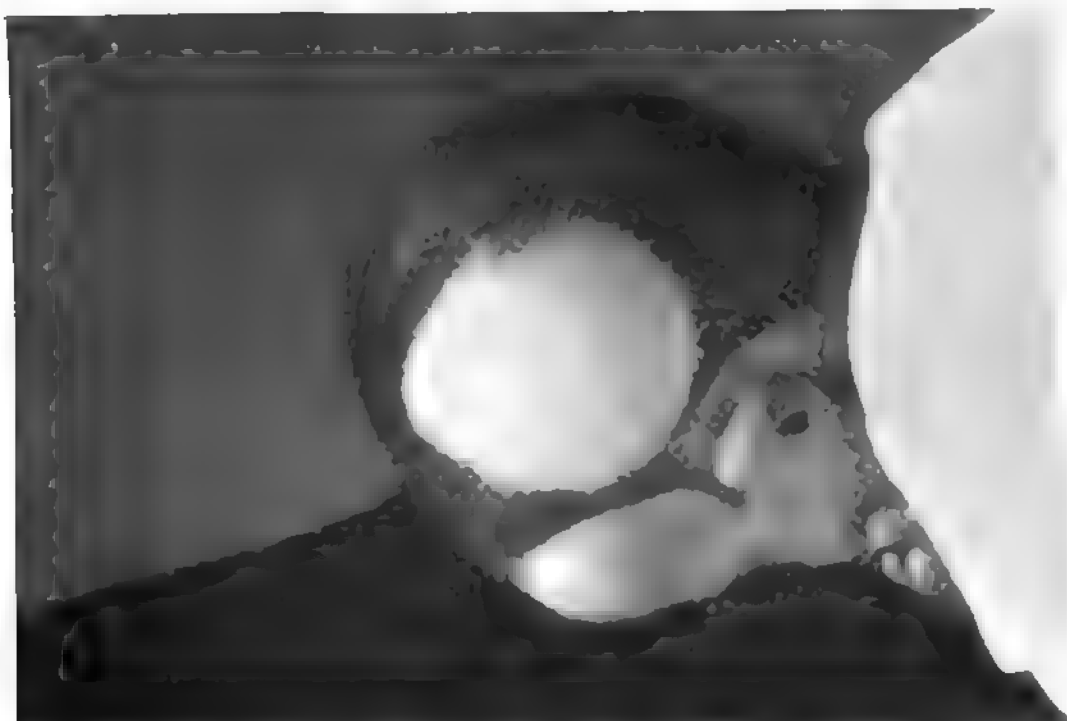
So far this is the most unsatisfactory part of the technique, for the length of time occupied in treating the whole head is very considerable. The plan adopted so far in my cases has been to cover the scalp with sheet lead with a circular diaphragm about two inches in diameter. With an aniline pencil the area is marked out, and after the exposure a piece of lead corresponding exactly to the opening is attached to the part by means of strapping. The intermediate patches are rayed subsequently.

There is room for considerable improvement in this part of the technique. It seems quite feasible that before very long the tube will be constructed so as to revolve over a large area. A slight alteration will then have to be made in the "Tint B" of the pastille. One cannot help thinking that all the apparatus just described is rather complicated, and so it is. With only simple appliances at hand my first cases were treated, and with great success. The difficulty was to obtain small enough tubes. A number of these were procured, but their therapeutic value varied considerably. The tubes were used naked, and by means of cardboard and strapping the pastille was fixed in a direct line with the anode at a distance of $7\frac{1}{2}$ centimetres. The next difficulty was to have the pastille exactly $7\frac{1}{2}$ centimetres from the scalp. A glass slide, as used for microscopical work, answered the purpose, glued on to the end of a stick as a holder. The length of these slides is exactly $7\frac{1}{2}$ centimetres, and by this means the distance of the pastille could be exactly adjusted. The slide used happened to be exactly one inch wide, and as the tubes were 4 inch bulbs, the width of the slide served to measure the correct distance of the pastille from the wall of the tube. An ordinary ten-inch coil was used with a mercury dip break. The current from the main was employed. The length of time necessary to produce "Tint B" varied from 13 minutes to $1\frac{1}{2}$ hours. The therapeutic effect of the tubes soon gave out, and some tubes appeared to possess very little therapeutic value.

Many of us will readily remember how some cases react better than others in doing thera-



SAME CASE EIGHT MONTHS AFTERWARDS.



CASE OF RINGWORM EPILATION FOUR WEEKS AFTER X-RAY TREATMENT.

peutic work, and we can now console ourselves with the knowledge that many of the tubes used have possessed little, if any, therapeutic value.

The usual sequence of events is for the hairs to fall out after the fifteenth day, and by the thirty-fifth day for complete alopecia to be established. Two months afterwards lanugo appears and then adult hairs, and within four months the new growth is usually complete. Sabouraud recommends anointing the entire head daily with a tincture of iodine solution composed of tincture of iodine 1 part, alcohol 80 per cent. 9 parts. This application ensures great protection, and when a scalp need not be entirely epilated it prevents the infection of the healthy parts.

It is generally noted that fair people respond slightly more readily than dark ones, and also that already inflamed areas require a little less exposure. The face, too, generally reacts more readily than the scalp. These points are worth remembering.

In conjunction with Dr. William J. Munro, several very successful cases have been treated, notably two cases of ringworm of the head, involving the entire scalp in each case, and one of sycosis. Over eight months have elapsed since the cases were treated, and the results are entirely satisfactory.

Sabouraud, in his famous monograph on the subject, deals with the financial aspect of the treatment. He describes how the "ringworm colonies" are gradually being dispensed with and how the cost per case has been reduced from 2000 francs to 260 francs, for whereas the cases occupied on an average two years to treat, they now occupy about six weeks. He claims that the Assistance Publique already saves 300,000 francs per annum, a sum which will increase from year to year. He sums up by saying: "In short, we hope, my assistants and I, within a very few years to erase from Paris even the memory of the epidemics of ringworm which it has experienced."

In conclusion, I would like to express my sincere thanks to Professor Sabouraud, and Dr. Sequeira for original papers and correspondence on the subject, and my gratitude to Dr. W. J. Munro for supplying the cases, assisting me with the treatment, and consequently sharing with me the responsibility attendant therewith, which I can assure you is no sinecure in pioneer work.

(Read before the New South Wales Branch of the British Medical Association.)

LARGE INFECTED LIVER HYDATID TREATED BY EVACUATION AND IMMEDIATE CLOSURE WITHOUT DRAINAGE.

By R. Hamilton Russell, F.R.C.S. (Eng.), Surgeon to the Alfred Hospital, Consulting Surgeon to the Melbourne Hospital for Sick Children, Melbourne, Victoria.

THE case that I am about to narrate will, I believe, be found to present features of unique interest. So far as I am aware, it has never been suspected that an infected liver hydatid may, under any conditions, be treated by immediate closure without drainage after evacuation. Yet the following interesting clinical experience will, I think, suggest that our views on this subject may be on the eve of considerable modification.

CASE.—A man, *æt.* 45, was seen by Dr. C. Perry, of Hawksburn, July 9th, 1907, and sent at once to the Alfred Hospital, where he came under my care. There was a three days' history of somewhat sudden illness with abdominal pain, fever and jaundice, with considerable enlargement and muscular rigidity in the hepatic region and epigastrium. On admission the temperature was 102°, pulse 100. He was in considerable abdominal pain, jaundiced, and evidently very ill.

Operation, July 10th.—The abdomen was opened through the upper part of the right rectus, and a large tense hydatid cyst exposed. This was opened and a great quantity of decomposing cyst and fluid evacuated. The contents of the cavity were bile-stained and very offensive, and bile was seen to be escaping into the cavity. For reasons that I shall explain, I had very good grounds for knowing that drainage of these cases is not by any means always a satisfactory and safe procedure, and I was powerfully impressed with the desirability of finding some other way if it could be done without incurring unjustifiable risk. It occurred to me that to substitute a quantity of salt solution for the putrid hydatid cyst and fluid, and then close the adventitia up again, could hardly make the patient worse provided the process were carried out with reasonable care, and I had no doubt whatever of being able to so manage that the fluid should not leak out into the abdomen. Accordingly, after profusely irrigating the interior of the adventitia, thus removing the débris, small cysts, etc., which seemed inexhaustible, the cavity was filled with salt solution, and the opening was very accurately closed with sutures of fine silver

wire, and returned into the abdomen. The abdominal wall was then completely closed with silver wire sutures.

The after progress of the case is briefly told. The pulse and temperature fell to normal immediately after the operation, and were not materially disturbed afterwards. The wound in the abdominal wall, unavoidably infected by the organisms that had invaded the hydatid, pursued the course usual in such an infected wound; it did not suppurate nor did it break down, except for about an inch near the middle of the incision. It exuded a scanty foul-smelling fluid, and presented the sloughy irritable appearance that is usual in such cases. Finally it cleaned up and healed almost as rapidly as though aseptic healing had occurred. The great fact of the case is that the adventitia with the fluid enclosed in it was never in evidence again, and the general progress of the patient was rapid and uninterrupted, so that he was able to leave the hospital 24 days after the operation, quite well except for a small granulating point in the middle of the incision.

Remarks.—The above case, together with another case of a woman, similar in nature, but treated in the orthodox way by drainage, formed the subject of a paper recently read before the Victorian Branch of the British Medical Association. The other case, which had been through my hands at a slightly earlier date, had done very badly under drainage, and had finally died from hæmorrhage from a large branch of the hepatic vein 16 days after operation. It was this painful experience that impelled me so strongly to attempt some other way in the case of the man.

In estimating the significance of this case, and endeavouring to formulate some general scheme for future guidance, it is necessary, I believe, that we should distinguish between a cyst that is merely infected and a cyst that is suppurating. The cyst in this case was infected by intestinal organisms (mostly anærobæ); the peculiarly foul odour of the fluids is familiar to surgeons who do frequent operations for appendicitis. But it was not yet in a state of suppuration, although it would shortly have become so. I do not think it would be possible to close a suppurating hydatid in this way. The difference would seem to be much the same as that between the stinking peritoneal fluid around a recently perforated appendix and an appendicular abscess. Where the former alone is met with the abdomen can be closed without drainage

after removal of the appendix; but when a definite suppuration has taken place the case is different, and drainage is essential. Familiarity with intestinal organisms, and their behaviour when they break loose in the abdomen, will impress the surgeon with the fact that they display a remarkable lack of virulence; so that very considerable liberties may be hazarded with these foetid fluids that could not safely be taken with others that smell a great deal less malign. Abundant experience has shown, for instance, that in operating for appendicitis in an area of the abdomen profoundly affected with these fœtor-producing organisms, one may work with the greatest freedom in searching for the appendix without the least anxiety as to any risk of causing peritonitis thereby. Again, I find myself nowadays closing the abdomen and discarding drainage with increasing frequency, and this is the experience of most surgeons who have many opportunities of operating in abdominal surgical disorders. There is a striking difference between the clinical course of a case in which the abdomen can be closed and one in which it is necessary to use drainage; and the difference is all in favour of the former. As an example, I would cite the case of an acute perforation of the appendix operated upon with promptitude, say within 48 hours. There will be a good deal of stinking fluid about the cæcal region, and it will have flowed into the pelvis. If now we remove the appendix and clean the fluid out of the pelvis, we may close the abdomen, and the case will do perfectly well as far as the abdominal cavity is concerned, although perhaps the abdominal wound itself may show evidence of infection. But I know from past experience that if, instead of closing the abdomen, we put in a drainage tube there will be a foetid discharge from the tube for many days. This consideration it was that made me so profoundly desirous to close the abdomen if possible, for the fatal case of the woman had been characterised by increasing amount and fœtor of the discharge, that culminated eventually in hæmorrhage and death. To have merely sewn up the opening in the adventitia could not be expected to succeed very well; the cavity would fill up with highly infected bile, which would be sure to require evacuating. My idea in filling the cavity with salt solution was to establish a condition of "pressure equilibrium" in the adventitia before any considerable quantity of bile could be poured out. By this means the flow of bile into the cavity would be

checked early, while such quantity as actually entered the cavity would be greatly diluted by a large volume of salt solution, and so rendered a very poor culture medium for the further growth of organisms. This is only a tentative exposition of the theory; whether further experience will confirm it or modify it out of recognition remains to be seen.

Let me finally say one word as regards what I conceive to be the chief condition of safety in carrying out this method. The opening into the cyst must be made in a situation where the wall will be thick for suturing. If the abdominal incision chances to expose a part of the cyst where the adventitia is very thin, I should advise the surgeon to enlarge the abdominal wound to reach a spot where the adventitia is substantial, and to leave the thin portion intact. I also think that fine silver wire is the suture of choice in an infected case. If carried out with these precautions I cannot believe that the procedure would involve material risk even if it did not succeed so well as in the case described. In the event of the sac filling up I would advise the surgeon to refrain from opening it unless the amount of disturbance caused compels him to do so. I think such a case will probably do better if the fluid is allowed to make its own way out than if it be deliberately opened and drained by the surgeon.

REVIEWS AND NOTICES OF BOOKS.

DIAGNOSTICS OF DISEASES OF CHILDREN. By Legrand Kerr, M.D., Professor of Diseases of Children at the Brooklyn Post-graduate Medical School. Octavo of 542 pages, illustrated. Philadelphia and London: W. B. Saunders & Co., 1907. Melbourne: Jas. Little. Price, 27s.

A little time ago there was a complaint that the study of the diseases of children was not sufficiently catered for. That complaint, so far at least as literature is concerned, can no longer be made. During the last few years there has been quite a flood of new books on the subject; and still they come. Here we have a large volume devoted entirely to the diagnosis of the diseases of children. No fault can be found with the subject. Samuel Gee in his address, "Sects in Medicine," has it: "The empiric would almost agree with him who exclaimed that the first part of treatment is diagnosis, and the second diagnosis, and the third diagnosis." Certainly, if diagnosis could be perfected, treatment would be easy.

In this book the author pre-supposes a knowledge of pathological processes, nor has he a word to say on laboratory methods. The avowed object of the writer is "to approach the subject as the child is approached in the sick room, with the idea of arriving at correct conclusions." Within these limits the book is a good one. The general plan adopted is to take some prominent symptom, such as would be complained of in practice, and to discuss the significance of it, and

to describe and differentiate the diseases of which it is the outstanding feature. Diseases which do not readily fall into groups of this kind are described separately. The author's method may be illustrated by a reference to the section on paralysis. With a preliminary warning about false paralysis induced by pain, he divides the subject into—1. Paralysis in which the marked feature is muscular flaccidity, including infantile spinal paralysis, multiple neuritis, some forms of transverse myelitis, some forms of infantile cerebral paralysis, acute ascending paralysis, and chorea. 2. Paralysis, the marked feature of which is muscular spasticity, including infantile cerebral paralysis (pre-natal, natal, postnatal groups), hereditary spastic paralysis, transverse myelitis, paraplegia from spinal caries. 3. Paralysis unclassified as regards flaccidity, spasticity or atrophy, including amaurotic family idiocy—functional paralysis, and hysterical paralysis. 4. Paralysis in which the most noticeable feature is wasting, including muscular dystrophy, peroneal form of atrophy, and syringo-myelia. There are sections on subjects of such general import as the face in disease, the cough, the cry, the voice, pain; and they are all ably dealt with.

One notices an entire absence of the aphoristical method from the book, there being an effort to systematise all the signs of disease. Every book must have its system, but there can be no doubt that where knowledge is incomplete a few good aphorisms are worth pages of systematised uncertainties. In his classification of diseases characterised by vomiting and diarrhoea, the author has followed closely that of Emmet Holt; about this we would say that he is unnecessarily complicated, and that distinctions are made for which there is no justification. The section on convulsions is extra good, but that on anæmia is scarcely up-to-date. The book is illustrated by a large number of useful drawings and diagrams. On the whole the author is to be congratulated, and his book can be safely recommended to both students and practitioners of medicine.

ATLAS AND EPITOME OF DISEASES OF CHILDREN. By Dr. R. Hecker and Dr. J. Trumpp, of Munich. Edited, with additions, by Isaac A. Abt, M.D., Rush Medical College, University of Chicago. With 48 coloured plates, 147 black and white illustrations, and 453 pages of text. Philadelphia and London: W. B. Saunders Company. 1907. Melbourne: Jas. Little. Price, 21s.

Two things may be said about this book—one is that it is worth having for the illustrations alone, and the other is that if it were not for them it would not be worth having. The authors would probably not object very much to this criticism, as they have made instruction by pictorial illustration the chief purpose of the book. Their object has been to supplement an allegedly imperfect clinical instruction in pædiatrics with a good array of pictures. They have in a large measure succeeded. There are 48 coloured plates and 147 black and white drawings in the book, all well arranged. The coloured plates are very fine, and the reviewer, for one, has never seen anything better or more lifelike. The other illustrations are also excellent, and well chosen. It is a feature of all modern education that the pictorial method of instruction is being greatly extended. It is recognised that thoughts can be expressed in other forms than language, and also that a picture may express thoughts for which there are no words. Books may be considered to constitute an external memory of mankind; and, further, just as memory is the centre of individual consciousness, so books may be regarded as the centre of national

consciousness. It is well, therefore, that they should record thoughts expressed by picture as well as those by language.

The written part of this book is not so good as the pictorial. It is admittedly only an epitome, but even so it could do with a revision. This is all they have to say on the prognosis and treatment of intussusception: "The child usually dies of peritonitis. Spontaneous resolution occurs occasionally, and rarely recovery follows sloughing of the necrosed intussusception." If Munich does not know more than that, it is years behind Sydney. The following questionable advice is given on the after-treatment of tracheotomy: "The tubes should be removed for cleanliness sake on the third day." Here we expect our nurses to know that the tubes should be "changed" at least once a day. However, the pictures are the serious part of the work, and every medical library would be the better for including them.

MEALS, MEDICINAL, WITH "HERBAL SIMPLES" (OF EDIBLE PARTS), CURATIVE FOODS FROM THE COOK, IN PLACE OF DRUGS FROM THE CHEMIST. By W. T. Perritt, M.D. Bristol: John Wright & Co. London: Simpkin, Marshall, Hamilton, Kent and Co., Ltd. 1905.

This is a book of its own kind, consisting chiefly of a number of recipes from many countries linked together in a chatty and even humorous style, with running commentaries from one who, while making himself acquainted with modern scientific ideas, has not thought fit to ignore the traditions of our ancestors. Interesting it certainly is, if only for its study of ancient lore; but probably there are many who will find in it a great deal that is useful. One could spend time much less profitably than by taking this book in hand for an occasional leisure hour, and probably find on doing so much pleasure and good. It would be hard to say where one could get elsewhere the information upon the several hundred topics with which this book is replete, and which includes many "animal simples" as well as herbal ones.

TICS AND THEIR TREATMENT. By Henry Meige and E. Feindel, with preface by Professor Brissaud. Translated and edited, with a critical appendix, by S. A. K. Wilson, M.A., M.B., B.Sc., Resident Medical Officer, National Hospital for Paralysed and Epileptic, Queen Square, London. London: Sidney Appleton. 1907. Sydney: Angus and Robertson.

Dr. Wilson has done an admirable piece of work not only in translating this work, but in incorporating in this edition the latest definitions and views of M. Meige, as presented in his monograph "Les Tics" (July, 1905). The passages thus added are enclosed in brackets, and the bibliography has been largely supplemented and brought up to date. The translator has also added an appendix in which reference is made to various matters in regard to tics, on which discussion has taken place subsequent to the publication of the French edition of this work.

The writers introduce the subject by a chapter entitled "The Confessions of a Victim to Tic," in which the various symptoms are well portrayed, and a clinical picture is presented to the readers, the details of which form the subject matter of subsequent chapters. The authors lay great stress upon the mental instability of the tiquer, and agree with the opinions of Charcot and Brissaud that "tic is a

psychical disease in a physical guise, the direct offspring of mental imperfection," and maintain that whatever theory of tic we may hold, or whatever may be the shape the individual tic assumes, it is in essence always a perturbed air of motility, corresponding to a psychical defect. In this connection the strong hereditary tendency to nervous disease is specially interesting. It is a common observation that in the antecedents of a patient, the subject of a tic, will be found hysteria, neurasthenia, psychasthenia, hypochondriasis, epilepsy, etc.

A lengthy chapter is devoted to a description of the various types of tic, illustrated by a great variety of cases, and one cannot but be struck with the large number of movements of this nature which may affect all parts of the body. The chapter on diagnosis is necessarily one of the most important in the book, and this point is thoroughly well discussed. In discussing the prognosis, great importance is again attached to the mental state of the patient. "The intensity and tenacity of any tic are determined by the degree of volitional imperfection to which its subject has sunk. He who can will can effect a cure: be it a simple tic, or be it a case of Gilles de la Tourette's disease, if he can struggle long and energetically the tic's doom is sealed. Permanent cures have undoubtedly been obtained, but they are the exception. Left to himself the victim to tic can seldom escape from it." In these few words practically all that can be said on prognosis is summed up. And they indicate clearly enough the line of treatment which should be adopted to obtain that degree of amelioration which is practically always attainable. While attention to general hygienic measures is of the utmost importance, the authors point out the inefficacy of massage, electricity, surgical treatment, etc., and show that the essentials of treatment consist in rest, isolation and re-education, and judicious psycho-therapy. All these methods are described in detail.

There is no other volume, we believe, at any rate available for English readers, which covers the ground of the subject of this treatise, and a good index of authors and subjects adds considerably to the value of it as a work of reference.

A TREATISE ON MATERIA MEDICA AND THERAPEUTICS, INCLUDING PHARMACY, DISPENSING PHARMACOLOGY, AND ADMINISTRATION OF DRUGS. By Rakhaldas Ghosh, L.M.S., Calcutta University; Lecturer on Materia Medica, Calcutta Medical School. Edited by C. P. Lukis, M.D., F.R.C.S., Lieut.-Colonel, Indian Medical Service; Hon. Surgeon to H.E. the Viceroy; Principal and Professor of Medicine, Bengal, etc., etc. Third edition. Calcutta: Hilton & Co. 1906. Price, 7s 6d.

The first edition of this treatise was favourably reviewed in these pages four years ago. The work has in the present issue been brought well abreast of recent advances in the subject, while a good deal of redundant matter has been eliminated. Two entirely new articles have been added, on Serum Therapeutics and Organotherapy, these subjects receiving the clear and concise study which the author has made characteristic of his work. The whole work is very comprehensive, scientific, and, above all things, practical. It will prove a most useful aid, in particular, to the practitioner. Several literary errata that crept into the first edition have been corrected. We cordially recommend this useful volume.

DISEASES OF THE DIGESTIVE SYSTEM. Edited by Frank Billings, M.D. Modern Clinical Medicine Series; an authorised translation from *Die Deutsche Klinik*, under the general editorial supervision of Julius L. Salinger, M.D. New York and London: D. Appleton & Co. 1906. Large octavo, pp. xvi+824, with 45 illustrations. Sydney: Angus and Robertson. Price, 27s 6d.

This collection of monographs is of high general excellence, as indeed one would expect from the list of contributors, which includes such eminent specialists as Nothnagel, Ewald, Boas, Vierordt, Strasburger and Hoppe-Seyler. Though the book does not systematically cover the whole ground of diseases of the digestive system, yet all the most important subjects are included, and have been dealt with so exhaustively that the American editor found few, if any, opportunities for additions. Here and there occurs some overlapping and even some lack of agreement—e.g., between Leo and Strauss as to value of different reagents in the analysis of materials withdrawn from the stomach,—yet in other places there is evidence of consultation between the different contributors, so that the articles are not altogether independent.

Pathology, diagnosis, and methods of examination—especially chemical methods—are described from the most modern point of view, so as often, indeed, to be surprisingly novel; and diseases which lie on the borderland between medicine and surgery are dealt with very fully, and their treatment is discussed in a spirit of sympathy with the operating surgeon. The subject of diet receives special attention; where the treatment is not surgical diet occupies the most important position, drugs being relegated to a subordinate place. The account of gastric lavage by Dr. Fleiner opens with a very interesting history of the introduction of this valuable measure, and contains most minute and elaborate directions for its employment in both diagnosis and treatment. Lavage is recommended in the cure of certain diseases of the liver and gall-bladder, and in some disturbances of metabolism, as well as in many gastric affections, above all in acute indigestion. Secretory disturbances of the stomach are treated most elaborately. In subacidity hydrochloric acid is advised, not as likely to improve digestion, but for its germicidal action. Chief reliance is to be placed on thorough mastication, stimulation of gastric secretion by means of appetising foods, and improvement of pancreatic to compensate the deficiency of gastric digestion. Dr. Oser's article on diseases of the pancreas contains a great deal of information, but curiously enough he has attempted to treat together all the diseases of that organ, and the result is rather confused. The account of *peritonitis* occupies 90 pages. The first part—on acute peritonitis, diffuse and circumscribed, with special reference to perityphlitis—is contributed by Dr. O. Vierordt, who bases his dissertation on a number of clinical histories, which he reports in full. Like Treves, whom he several times quotes with the greatest admiration, he distinguishes between *peritoneal sepsis* and *peritonitis*, describing the inflammation as a beneficent process, which increases the protective power of the membrane. This protective function is especially characteristic of *chemical peritonitis*, a sero-fibrinous peritonitis occurring when the tissues are permeable to the toxins from neighbouring septic foci, but not to bacteria. The various degrees of peritoneal infection are exhaustively discussed—peritoneal irritation, subacute peritonitis, diffuse peritonitis either

septic or putrid, the latter often attributable to the presence of a faecal concrement in the appendix, and leading to the dangerous condition of peritoneal collapse. A warning is raised against mistaking for peritonitis the hysterical condition, *peritonism*, which may closely simulate it. Dr. Vierordt does not seem to be acquainted with Dr. Head's work on hyperalgesic zones, nor does he mention the deceptive period of quiet which may follow perforation of, e.g., an appendiceal abscess, and precede the development of general peritonitis. In the treatment of diffuse peritonitis he recommends surgical relief, unless collapse has already ensued, when medical treatment must be adopted; the chief measures are rest, gastric lavage, withholding of food, free exhibition of water (if necessary per rectum or subcutaneously) and warmth; while the sheet-anchor is opium in full doses to secure arrest of peristalsis—and for this purpose opium is better than morphia, and camphor and caffeine, if stimulation be necessary. In the treatment of acute circumscribed peritonitis surgical intervention is frequently, but not invariably, required; the tendency of many experienced surgeons is to conservatism in mild cases; and even in cases of suppuration if the pus be encapsuled (tumour decreasing in size about the third day, diminution of fever, improvement in general condition and pulse) operation may be postponed, provided the patient can be watched. In the non-operative treatment, quiet is the essential; cold applications are good, but hot compresses are to be strenuously forbidden and enemata avoided (constipation of eight days and longer is usually well borne); opium is the sovereign remedy. The second part of the article on peritonitis is contributed by Dr. J. Boas, and is entitled "*Chronic Perityphlitis*." He distinguishes two chief forms—residual perityphlitis and chronic relapsing perityphlitis, the latter being more benign. Latent, masked and larval varieties are described. The keynote to treatment is extirpation of the appendix in the afebrile stage. The indication is never urgent, and excessive surgical zeal leads on the one hand to unnecessary operations in pseudo-perityphlitis, which is by no means rare; and on the other to the production of typhophobia. Dr. Strasburger considers the subject of examination of the faeces in a valuable article, illustrated by 24 fine figures, many of them in colours. Dr. Boas deals with constipation and hæmorrhoids; and here again the great importance of correct diet is strongly emphasised. Not content with general directions, he sets forth his methods most minutely by means of menus. He relies chiefly on milk-sugar, honey, butter and cream, sour milk, salads, and fruits. Abdominal massage, gymnastic exercises and enemata are useful, but drugs are if possible to be avoided. Rhubarb, magnesia, sulphur, cascara, or purgen may sometimes have to be employed; aloes, podophyllin, colocynth, bitter waters and salts, and castor oil never. In a limited space it is impossible to review every article, and there are others of equal importance with those we have selected. The style is in places rather stilted and pompous, and the translator has a fondness for unusual words—e.g., "euphoria," "epicrisis," "skolikoiditis," "ectatic." In one or two places the heavy type headings to chapters and paragraphs are misplaced; nor is the table of contents absolutely free from error. The binding and paper are very substantial—the book weighs 4½ lb.—and the type is bold and clear. As in most German treatises, there are two indices, one of authors and one of subjects. The book can be confidently recommended to all who desire special knowledge of gastric and intestinal disorders.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 21ST OCTOBER, 1907.

THE CHILD, THE LAW AND THE STATE.

IN an interesting brochure recently published by the authority of the late State Premier, the Honourable Dr. C. K. MACKELLAR, President of the State Children's Relief Board, gives a short account of the progress of reform of the laws affecting children in New South Wales, and adds some suggestions for their amendment and more humane and effective application. Dr. MACKELLAR has for many years been a student of the problems he discusses in these pages, and they accordingly demand careful consideration.

One fundamental conception which the author emphasises is that while heredity is a factor to be taken into consideration, environment in early years is a more powerful agent in moulding the character of the child. The offspring of drunken parents may inherit some physical defects which manifest themselves later on as actual diseased conditions, but the environment of the drunkard's home is a more powerful cause in leading to the development of vice and crime in the child. Now if this be true, and certainly all the facts seem to point to such a conclusion, it is clear that this is the strongest argument that can be used in support of the operations of the State Children's Relief Board, and of all agencies which can legitimately improve the home life and surroundings of the child from its earliest years. A most striking illustration of this is given by Dr. MACKELLAR. In an area of some 60 miles in New South Wales, which was formerly the site of a great gold-field, a very degenerate and but small population remained. The children were growing

up under the most unfavourable surroundings of vice and crime. As a result of proceedings taken under the Neglected Children's Act and the State Children's Relief Board, a very large number of these children were removed to more healthy local environment, and were thus saved from growing up to follow vicious careers.

Another important principle which is laid down in these pages is that punishment is not always effectual as a deterrent to crime, and that instead of children being sent to gaol to mix with older persons who are perhaps hardened in crime, they should be sent to industrial schools, reformatories, etc., when, under suitable moral and physical control, they have the chance of growing up to be useful members of society. Punishment should only be inflicted on these children as a means of disciplining and reforming the character. In this connection it is interesting to learn that there are no children under 16 years of age in gaol now, although in former years such was not the case.

The principle of "boarding-out" infants and children instead of herding them together in large barrack-like institutions is one that has been proved by past experience to be a sound one. We know that the death-rate of infants and young children in large institutions is very much higher than that of children boarded out in suitable homes, and from this point of view the desirability of the further extension of this system is obvious. We want to prevent the waste of infant life, and so conserve a great national asset. We want the waifs and strays, "those off-scourings of a too compressed social system where the law of so many countries for so many centuries has all too readily stigmatised and condemned as criminals or quasi-criminals," to grow up to be useful members of society. And we may congratulate ourselves that all the tendency of the legislation in recent years bearing on these questions is to improve the

moral and social environment of the children of vicious or degenerate parents, and so save them from following criminal careers. We would heartily commend Dr. MACKELLAR's pamphlet to the serious consideration of the profession.

LOCAL GOVERNMENT AND THE PUBLIC HEALTH.

THE New South Wales Board of Health has recently issued some amended regulations under the Public Health Act to supersede those issued last November. In these regulations the duties of local governing authorities as to health matters are fully set out. Under section 17 of the Public Health Act the local authorities are made the administrators of the Act, and are directed to carry out its provisions in their respective areas. If these bodies are efficient they are masters of the situation, and the care of the public health must therefore pass completely into the hands of elective local bodies, and the Board of Health will consequently be relieved of a responsibility which has been forced upon it, and its duties will be confined to scientific, statistical and experimental matters.

In the event, however, of the local authorities being remiss in their attention to these important duties, the Board of Health can step in, and has the power if the neglect continues to cause the necessary work to be done, and the local authority must pay the cost. The central board thus exercises a watchful eye over the administration of the Public Health Act, and it acts as an important adjunct to the local authorities by furnishing advice to those bodies, by recommending the approved scientific treatment of epidemic diseases, and the approved methods of sanitation.

But of special importance to the new councillors of shires are those sections of the Public Health Act which deal with infectious diseases. Where any disease has been pro-

claimed by the Government as infectious under the Act the responsibility of notifying the local authority rests mainly on the medical profession. For when the disease has been diagnosed, the householder as well as the medical practitioner must notify the existence of the case, and all particulars in reference to it, to the local authority. It then devolves upon the local authority to take the necessary steps to prevent the spread of the disease and to ensure satisfactory and efficient disinfection of premises. Another important provision in the Act is the notification by the late tenant, agent, or owner of an empty house which is to be let of the presence of an infectious disease in it. The late tenant must make a true statement to the owner or occupier, or to a person negotiating for the hire of the house, as to the fact that there has been within six weeks previously during his occupancy a person therein with an infectious disease. The significance of this provision from the point of view of the prevention of spread of infectious diseases is obvious, and although pulmonary tuberculosis is not a notifiable disease under the Act, yet the application of this provision to houses which have been lately occupied by consumptives is most important.

The transference of the administration of the Public Health Act to the local authority is thus a great step in advance, but the efficiency of it must depend upon the energy of the shire councillors. It is further obvious that the shire councils need the active co-operation of the profession in this work, and the appointment of local medical officers of health is a necessity. Public health work requires special training on the part of the medical man, but we have no doubt that efficient medical officers of health can be found. We hope that the shire councils will realise that special work of this nature is not always conducive to extension of a medical man's private practice, and that it should be adequately remunerated.

THE MONTH.

Typhoid Infection.

The possibility of a patient who had suffered from typhoid fever being a source of danger to other persons, even long after convalescence has been established should always be borne in mind. A case which has been under the observation of the officials of the Health Department of New York illustrates this very well. A female cook had an attack of typhoid fever some six years ago, and although she recovered perfectly, and has been apparently in perfect health, yet her intestinal tract has continued to be an excellent culture medium for the growth and development of the typhoid bacillus. It is stated that 38 cases of typhoid fever have occurred in the families in which she has lived since her illness, and that these are all to be traced to this one source of infection. This is a form to which attention should be directed especially where cases occur in isolated districts which cannot be readily traced to any source of contamination.

A Judge's Opinion of the Medical Profession.

Mr. Justice Burnside, of Western Australia, may be a very eminent lawyer, and may adorn the judicial bench, but if the remarks which have been attributed to him are correctly reported, we think he should be a little more guarded in his remarks on the medical profession. In a case at the Criminal Court in Perth recently before him, in which a woman was tried for conspiring to secure the conviction of a man on a charge of interfering with her daughter, Dr. Haynes, of Perth, was called for the defence. In support of his statements in the witness-box he proceeded to read an extract from a medical work, when the counsel for the plaintiff objected. According to a report in the *Sydney Morning Herald*, the Judge upheld the objection and remarked that he did not believe much in what he saw in doctors' books, and he did not think they believed it themselves! We give the Judge every credit for being an honest doubter of the truth of many statements which appear in the writings of medical men (he is not alone in that respect), but we think that the insinuation he makes as to the dishonesty of the medical profession is one hardly worthy of a member of the sister profession of the law and of an occupant of the Supreme Court Bench.

We hope that when his time of need comes he will, for his own sake, learn to have some faith in the sincerity of his medical attendant; but perhaps he is like another member of a Supreme Court Bench who is reported to have said that he had more faith in the heaven-inspired intuition of a quack than in an educated medical man.

The Maintenance of the Charities.

According to Mr. Bent, the Premier of Victoria, the charitable institutions of that State need an expenditure of £250,000 to put them into a proper state of repair. The Government contributes £100,000 annually towards the maintenance of these charities, but the 218 municipalities, which receive annually some millions of pounds in revenue, only contributed last year £10,715 towards these objects. The balance of the money annually needed to support the hospitals and other charities is supplied by the voluntary gifts of a comparatively few people, although a large number contribute indirectly by their payments to the general taxation. Mr. Bent proposes to put a tax on sports and amusements, so as to make the support of the charities fall on the shoulders of those who could best afford it. In the legislation to be introduced during the present session of the Victorian Parliament in relation to probate and income tax, he proposes to insert some provisions that bequests and donations to charities above £20 should not be taxable.

Country Hospitals and Alcoholic Patients.

At the recent annual conference of delegates from the country hospitals of New South Wales, a resolution bearing on the treatment of alcoholic patients was passed to the effect that the Government should provide suitable accommodation for alcoholics in connection with police stations or elsewhere than at country hospitals. The sufferer from acute alcoholism, whether he manifest the symptoms of delirium tremens or any of the other forms of alcoholic psychosis, must be recognised as a sufferer from an acute illness, and although these patients have, by their own act, rendered themselves often extremely objectionable, still they call for careful medical treatment and nursing, and no other institution but a hospital is a suitable place for the carrying out of such treatment. A hospital exists for the relief of the sick and suffering, and no hospital should seek to

evade its responsibilities on the score of the patient being objectionable. The sufferers from acute alcoholism require frequently the most careful attention, owing to the possibility of acute heart failure, and to attempt to hand over the care and treatment of these patients to the police is one unworthy of any hospital committee.

The Increase of Population in Tasmania.

From a statement in the *Hobart Mercury* we learn that in respect to the natural increase of the population, Tasmania stands at the head of a long list, comprising nearly all the countries of the world; and this may be set down as one of the things not generally known. The average taken is of the five years, and the natural increase is reckoned per 1000 of the population. In this calculation we find the increase in Tasmania set down at 18.1 per 1000, while Western Australia comes next with 18, showing that the State has a young and marrying population. It may be noted that European Russia is third on the list, with 17.1 per 1000, but, then, the death-rate of Russia is enormously high, while that of Australasia is comparatively low. New Zealand comes next, with 16.9 per 1000; then follow New South Wales, the Netherlands, Queensland, and a number of European countries. South Australia is low down, with only 13.3 per 1000; while Victoria, with all her boasting, can only show 12.3 per 1000, which is slightly higher than the natural increase in Great Britain, while France occupies the very lowest rung of the statistical ladder, for the increase there is only 1.7 per 1000.

The Lara Inebriate Retreat in Victoria.

This institution was opened for the reception of male inebriates on July 1st last. Accommodation is provided for 25 inmates, but only 11 have so far been received. It is officially reported that of this number four have so far improved as to be allowed out on probation; the other seven still remain in the institution. It is stated that provision is being made for additional accommodation, which will enable the institution to admit female inebriates also. Plans have been prepared and tenders have been received for the work, but it is unlikely that the accommodation for females will be ready under four months' time. Applications for the admission of female inebriates have been singularly

few; in fact, the inspector has only received requests from four persons desirous of placing female inebriates in the Lara institution. We do not know whether this institution is founded for any special class of inebriates or under what special conditions they are admitted, but we think that a patient who was so hard a drinker as to warrant his admission to this retreat could hardly be considered as cured in three months, or so far improved as to warrant his release on probation. We all know how extremely deceptive is an apparent reformation of an inebriate, and a much longer period of detention in the retreat is, in our opinion, necessary if permanent good results are to be obtained.

Research in Tropical Medicine.

A memorandum containing the proposed arrangements for the appointment of the first officer in charge, or "Fellow of Tropical Medicine," as it is suggested he should be called, has been issued and approved by the Senate of the Sydney University, and is now being considered by the University authorities in Adelaide and Melbourne. It is based upon the assumption that the sum of £700 per annum is now assured (that is, £450 from the Federal Government and £250, it is hoped, from the Queensland Government). It is proposed that the fellowship should be confined to graduates of the Australian Universities, and be tenable for five years, and renewable only on special grounds. The appointment should be made by three men, nominated by each of the three Universities having medical schools, but after appointment the Fellow should pass under the direction of the University of Sydney. The central laboratory work should be done in the department of pathology in Sydney. The outlying laboratory work should be in the Townsville Hospital. Further propositions are made in the memorandum for the collaboration of the various Universities, and for their participation in the results of investigations in Townsville and North Queensland generally. It is proposed to commence operations in January, 1908. The following clause will specially interest the promoters of the Queensland University as showing that the formation of a medical school in Brisbane is anticipated: "Whenever any other State of the Commonwealth shall have established a medical school it may share in every way as if it were one of the original medical schools."

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

THE monthly meeting of the Branch was held at the Royal Society's House, Elizabeth-street, Sydney, on September 27th, 1907.

The President, Dr. B. J. Newmarch, took the chair. There were about 50 members present.

The President announced the election of the following members:—Drs. George Bell, Sydney; Augusto Braccar, Lismore; John Stuart Campbell, Stanmore; Alfred Nicholas Chenhall, Stanmore; Carlo Franceschi, Lismore; George Burnett Mander Jones, Wahronga; Gordon William Singer Marr, Waverley; George Augustus Paul, Sydney; Morris James Plomley, Narromine; Edward Schuett, Sydney.

The following nominations for membership were announced:—Drs. James Eric Vernon Barling, Dulwich Hill; Peter Herbert Metcalfe, Norfolk Island; Ernest Ludlow Newman, Casino; Mary Wilhelmina Wylie, Sydney; J. Murray Sanderson, Ballina; T. W. Sinclair, Town Hall, Sydney; Philip E. Corlis, Casino.

The Hon. Secretary read the motion standing on the business paper, and explained the reason why the resolution was introduced afresh, viz., that members might reaffirm the motion and thus have the matter brought prominently before the members of the Branch.

Moved by the Hon. Secretary on behalf of the Council—"That it is unethical for medical practitioners to grant interviews to representatives of the lay press on medical matters in connection with which their names are allowed to appear." (Passed by the Australasian Medical Congress, Adelaide, September 9th, 1905.)

Dr. CHARLES MACLAURIN read a paper on "The Incidence and Fatality of Hydatid Disease." (See p. 502.)

Dr. LITCHFIELD, in referring to the rainfall and Dr. MacLaurin's conclusion that it was in a measure responsible for fluctuations in the occurrence of the disease, said that the rainfall in Sydney was no index of that in the country. As a matter of fact, Mr. Russell had shown that there was an antagonism between the rainfall on the coast and that in the interior; for example, in the years when the rainfall is above the average at Bourke, it is below the average at Sydney, and *vice versa*. The reason for this is that the rainfall at Bourke and the west generally comes from cyclonic storms travelling from west to east, which deposit the bulk of their moisture before reaching the coast, while Sydney gets most of its rain from inshore winds from the east, which do not carry their moisture beyond the mountains.

Dr. FIASCHI said the comparative small number of hydatid cases shown by the statistics taken in the years before 1885 cannot be well understood by men who practised in those times. His first case of hydatids occurred in 1876, and between that year and 1885 he saw many such cases in his own and in other medical men's practice. He was quite sure that men practising in those years could diagnose hydatids, so he looked on those statistics as incorrect. As regards the age of greater mortality at about 50, it coincided with the age in which cancer and various other diseases were more prevalent. Remembering that hydatids may remain latent, in the so-called state of suspended

animation for years, it is reasonable to suppose that in that age in which the resisting powers of man begin to decline, these dangerous parasites may find greater opportunities to develop and interfere with life. The total mortality of 10 per cent. given by Dr. MacLaurin, coincided with his own experience, and he quite agreed with him in considering hydatids a very serious disease. The greater prevalence of pulmonary hydatids in men than in women was a good argument in favour of the inhalation theory, for nobody could deny that men are far more exposed than women to those conditions of life in which it is possible to inhale the air-borne egg. He incidentally heard Dr. MacLaurin say that the average duration of hydatid disease was six years. He would refer him on this point to an excellent paper on hydatids recently published by Professor Watson, of Adelaide, in Surgery, Gynecology and Obstetrics. The Professor there in discussing the relative size of hydatids in man and in sheep, large in the former and invariably small in the latter, mentions various cases of large hydatids found in children under four years, and further on cases in which hydatids have undoubtedly been present in man for 25 years. He thought that six years was below the average duration of hydatid disease.

Dr. STACY wished to congratulate Dr. MacLaurin on the trouble he had gone to in compiling his paper, but wished to criticise some of his conclusions. Firstly, in regard to his theory that the lowered death-rate in the years 1894 and following were due to the wet seasons commencing in 1888. Now 1888 was a dry year over the greater part of the State, a fact which the late Mr. Russell relied on to illustrate his 19 year cycle theory of the weather; it was a year resembling in dryness the present year, both being the final years of the cycle. He thought that the improved results commencing in 1894 or so were due rather to the substitution of aseptic methods for antiseptic, which was taking place in Prince Alfred Hospital about that time, a good instance being the draining of a clean case into the peritoneal cavity instead of externally, avoiding all the dangers of prolonged suppuration attending the latter. With regard to Dr. MacLaurin's figures showing pulmonary and peritoneal hydatids to be the most common, they were in accord with the experience of most; the great danger in pulmonary cases being asphyxia from hæmorrhage or hydatid fluid, and in peritoneal cases the hydatids were usually multiple, necessitating several operations and exposing the patient to the risk of waxy disease from prolonged suppuration in the draining of them. Regarding liver hydatids, he had seen a fatal case which clinically resembled acute yellow atrophy, but post-mortem the liver was seen to be channelled throughout with large canals—apparently dilated bile-ducts—containing a gelatinous bile-stained fluid, which microscopically contained hydatid hooklets; there was absolutely no sign of a cyst wall; had it not been for the microscope the diagnosis would have remained doubtful. He had never read of a similar case.

Mr. CRAGO said he had seen a considerable number of hydatids—probably 20—tapped by the late Hon. Dr. Bowker between the years 1874 and 1879, so he also questioned the accuracy of Dr. MacLaurin's first conclusion as to the rarity of hydatids before 1885. The late Dr. Davies Thomas, of Adelaide, had also had a considerable clinical experience of hydatid disease before that date. Hydatids were probably prevalent in South Australia earlier than in New South Wales. He (Mr. Crago) had seen a girl of five or six die from the rupture of a large hydatid cyst of the apex of the left lung, which had been diagnosed but not operated

upon. She was speedily drowned by the fluid. He was surprised to find that only two cases of hydatid of the brain appeared in Dr. MacLaurin's statistics, as he had seen four cases in his own practice, two of which were still alive after operation and two died suddenly while awaiting operation.

Dr. P. FIASCHI said: Considering the great amount of benefit now being obtained in Europe and America in the prevention of tuberculosis by means of popular education, and the brilliant results obtained in the campaign against yellow fever in Cuba by preventive measures, it seemed to the speaker that the incidence of hydatid disease in the State in approaching years might be greatly reduced by a vigorous elucidation along popular lines conducted by a medical expert from time to time, and not through laymen.

Dr. A. J. BRADY thought Dr. MacLaurin should have searched the records of the Sydney Hospital. During his experience in years back he remembered that hydatids of the liver were very common. In 1875-8 many cases could be seen in the wards of the Sydney Hospital. Hydatids of the brain were probably missed in those days. He claimed that aseptic surgery was of older date in Australia than stated by some of the speakers.

Dr. CHENHALL inquired concerning hydatids of the muscles.

Dr. MACLAURIN, in reply, thanked the members present for their kindly criticisms, which would be of great value to him. He had never met any patient who knew how hydatids were spread, and thought it should be taught in the schools.

Dr. W. J. MUNRO and Dr. HERSHEY HARRIS contributed a paper on "Ringworm," which was read by Dr. Harris. (See pp. 509-510.)

Dr. W. McMURRAY had listened with interest to Drs. Harris' and Munro's paper. Certainly the X-ray method of treatment of ringworm of the scalp would be ideal were it free from risk. No case can be discharged as cured until the hair has not only fallen out, but has shown considerable re-growth, and freedom from disease. One advantage of the X-ray method was that it shortened the course of treatment considerably, an important consideration at an age when the education of the child had to be thought of. In successful cases epilation occurs in three weeks and re-growth in three months. On the other hand it had many disadvantages. You require a specially trained nurse; it took five hours to ray the entire scalp; burns occurred now and again, and in spite of their more recent experience, and seemed at times unavoidable. Then as to dosage. One could measure accurately what is going into the tube, but it was another matter to estimate what was being discharged. These tubes are constantly varying when once excited. The entire operation was controlled by Sabouraud pastilles, and these were not absolutely reliable. He (the speaker) found they took from 20 to 25 minutes to discolour. Dr. Harris said he exposed one of his cases to the rays for one and a quarter hours. He (Dr. McMurray) said he should not care to take such a risk. Another disadvantage was that sometimes islets of diseased hairs remained and acted as foci of re-infection. The apparatus he had was Deane's, similar to that in use in London Hospital. He had perhaps said enough to show that X-ray treatment is by no means perfect. So long as cases are treated by those who thoroughly understand the dangers, perhaps the method may be recommended.

Dr. HERSHEY HARRIS, in reply to Dr. McMurray, said that he agreed with him that a certain amount of risk attended X-ray treatment of ringworm, but that if the instructions were properly carried out they were

greatly minimised. Concerning the intermediate areas acting as foci for fresh infection, it must be clearly understood that no fresh areas should exist, for these must be dealt with separately after the circular patches have been rayed—treated exactly in the same manner. Considering the fact that such men as Sabouraud and Sequeira have treated thousands of cases of ringworm by this method and have given up every other form of treatment, is sufficient evidence as to its efficacy. The technique is tedious, and the appliances are expensive, so that a fair remuneration should be demanded in these cases. The apparatus referred to by Dr. Willis is evidently that supplied by A. E. Dean, of Hatton Garden. By its use the leaden diaphragms may be dispensed with.

Dr. C. S. WILLIS said that while recently working at the West London Post Graduate Hospital he had seen ringworm treated very successfully by the X-rays. In the out-patient department of that hospital one saw very few cases of ringworm nowadays, whereas before X-ray treatment was established there a very large number of such cases were always to be found. They used a head-glass tube, shaped like a half hemisphere, with the centre drawn out into a cylinder to conduct the rays to the area under treatment. This did away with the necessity for the use of leaden diaphragms. Sabouraud's pastilles were used to indicate the time of exposure, and the risk of burning was considered to be almost nil.

Victoria.

THE usual monthly meeting was held in the hall of the Medical Society of Victoria on Wednesday, October 2nd.

The President, Professor Allen, was in the chair.

Mr. R. HAMILTON RUSSELL showed a case of Schede's operation.

Mr. W. KENT HUGHES showed a case of extensive lupus of the face and eye, at present under treatment with tuberculin, after operation.

Mr. W. KENT HUGHES read a paper on "The Surgery of the Nasal Sinuses." The paper was profusely illustrated with lantern slides and specimens. In antral disease he advocated radical treatment through the canine fossa, an opening being made large enough to admit the tip of the little finger. It was bad surgery to remove a sound tooth to get drainage from what in many cases was not the lowest point of the floor of the antrum. In frontal sinus disease he advised Killian's operation, which he described as leaving little or no deformity.

Dr. A. L. KENNY said that nasal sinusitis was much more common than was generally suspected by practitioners. He quoted Dr. Kirkland's figures as to the prevalence in infants of antral disease. Influenza epidemics were responsible for a great deal of trouble in the nasal sinuses. He would not so unreservedly condemn the opening through an alveolus in disease of the antrum. A small proportion of cases were due to tooth trouble, and one did see cures in these cases. It was possible to reach every part of the antrum with a flexible catheter if there were no septa. The radical operation was even more extensively done by Jansen and most American operators. The latest idea was to make a larger opening from the nasal aspect. The opening in the canine fossa was the best where there was no tumour, nor septa, nor foreign body in the antrum. In the case of frontal sinusitis few nowadays attempted treatment by intranasal methods. All the operations depended upon free opening through the frontal wall. In Killian's operation the preservation of the arch did not always prevent deformity. He advocated an osteoplastic operation, after which com-

plete ossification took place as a rule. He complimented Dr. Hughes on his paper, and thought it should waken the general practitioner to a recognition of the frequency of these diseases.

Dr. HUGHES, in reply, said that he undoubtedly made use of a decayed tooth in antrum disease in the first place, but he did not find it satisfactory to explore through a tooth socket. His experience of Killian's operation evidently differed from that of Dr. Kenny.

Dr. J. F. WILKINSON demonstrated the Safranin test for sugar in the urine. He claimed for it great value as a negative test, and considerable value as a rough quantitative test in low percentages of dextrose.

Mr. R. HAMILTON RUSSELL read a paper on "Two Cases of Large Infected Liver Hydatids." (See p. 514.)

Mr. G. A. SYME said that he agreed with Mr. Russell's dissatisfaction with Lindemann's operation. There was often a flow of bile into the cyst—often infected. Mr. Russell's new treatment required more observation before it could be adopted. Would not the saline be rapidly absorbed through the very vascular adventitia of the hydatid? Much depended upon the degree of infectivity, and how far suturing sufficed to keep up the pressure.

Dr. MOORE could not agree with either Mr. Syme or Mr. Russell. He thought there was little risk in closing the cyst and dropping it back in the small number of cases when one was sure the cyst was empty. He thought that Mr. Russell's procedure might with safety be adopted, as the incision in the cyst wall would be below the abdominal incision and could be opened with sinus forceps if necessary. In Mr. Russell's fatal case he (Dr. Moore) would not have made a counter opening nor would he have washed out continuously. Drainage would be efficient even if in an upward direction. He would leave the tube out in 24 hours, and rather than wash out would pack with iodoform gauze. The discharge would be less, and sloughing would be less likely to occur. He would not hesitate to use Mr. Russell's method in suitable cases.

Dr. J. COOKE said that after 34 years' experience of hydatid operations he was adverse to irrigation. Effective drainage alone was much more successful.

Mr. RUSSELL, in reply, said that it was impossible to draw absolute conclusions from one case. He had not formerly suspected the possibility of closing an infected hydatid, and he considered that the success in this case was at the very least a singularly hopeful fact.

Dr. J. F. WILKINSON showed blood films from a case of acute lymphatic leukaemia, notes on which by Dr. Spowers were postponed.

South Australia.

THE ordinary monthly meeting was held at the University on Thursday, September 26th, the president (Dr. Evans) in the chair. Twenty-two members were present.

Dr. POULTON showed a case of bullet wound of the thorax with skiagraph. From the situation of the wound of entrance and the present situation of the bullet ascertained by skiagraphy, he suggested that the bullet might have perforated the left auricle.

Dr. H. SIMPSON NEWLAND showed (1) a malignant tumour of the stomach successfully removed by partial gastrectomy; (2) a small renal calculus removed from a cortical cyst in the right kidney after successful skiagraphy.

Dr. BROWN (of Mount Lofty) read the notes of a "Case of Fleshy Mole."

Dr. F. S. HOWE (Semaphore) read a valuable paper on "Acute Pancreatitis," illustrated by a successful case.

Dr. POULTON congratulated Dr. Hone on his able paper, and read the notes of three cases of pancreatic cyst. The paper was also discussed by Drs. Verco, Hayward, Wigg and Newland.

Queensland.

A MEETING of the Queensland Branch was held on Friday, October 4th, at the Technical College, Brisbane; Dr. Love, president, in the chair, and a fair attendance of members.

Dr. LOVE showed a man with cyst in middle line of neck above thyroid cartilage, a thyroglossal cyst, which Dr. Love had opened on three occasions and applied caustics and cautery, but it had recurred in each case. Dr. Love also showed microscopic slides of (1) malarial parasites in benign tertian stage, (2) perithelioma of meninges.

The minutes of the last meeting were read and confirmed.

A report of the deputation to the Home Secretary regarding the work of the bacteriological institute was read, and a discussion upon the question followed. It was decided to take no further action in the matter at present.

Dr. MCLEAN reported a case of complete hysterectomy performed at the Brisbane Hospital under stovain anaesthesia from lumbar spinal injection.

Dr. LOCKHART GIBSON read a paper upon "The Recent Development of the Radical Mastoid Operation."

Dr. L'ESTRANGE discussed the paper.

West Australia.

ORDINARY meeting held at the Perth Public Hospital, Wednesday, September 18th, 1907. Present: Dr. Trethowan (president), Drs. J. M. Y. Stewart, Rigby, Blackburne, Weißen, Tymms, Officer, Teague, Badock, Brown, Martin and Robertson.

Minutes of previous meeting were read and confirmed.

New Members.—Dr. William Saunders Myles was unanimously elected a member. The Secretary notified that Dr. W. N. Davies, from the Victorian Branch, had become a member of the W.A. Branch by change of residence to this State.

Correspondence.—Letters were read from the Colonial Secretary and from the Clerk of the Legislative Council re the Public Health Bill now before Parliament. Upon this, Dr. Trethowan mentioned that he had attended a meeting of a Select Committee of the Council and placed the views of the Branch upon the clauses under discussion before the Committee. Also, a letter from Dr. T. B. Belgrave on the subject of the management of subsidised but non-Government hospitals.

Dr. J. M. Y. STEWART then read a paper upon "Post-Operative Hernia and its Prevention."

In the discussion Dr. TRETHOWAN was sure that we were all interested in Dr. Stewart's paper. The subject was one that all operating surgeons would have at heart. In the past, post-operative hernia had been far too common; and yet some surgeons got good results from the older methods. Greig-Smith quoted a long series of cases where after peritoneal suture the rest of the abdominal wall had been sewn by *en masse* sutures, and he had had excellent results. Dr. Trethowan did not think the method an ideal one, but good in cases where one had to operate against time. The method described by Dr. Stewart is really a valvular opening and is the principle to aim at in all cases where the abdominal cavity is opened. Where this was done the patient was often able to get up in a week. He asked

Dr. Stewart as to the persistency with which post-operative hernia followed in cases where drainage of the abdominal cavity had to be employed—a difficulty not easy to overcome.

Dr. TYMMS asked, as to the treatment of post-operative hernia, whether there is any method of applying the method described by Dr. Stewart to the treatment of such hernia?

Dr. STEWART, in reply, referred first to the question raised as to prevention of post-operative hernia in cases where drainage is necessary. To begin with he drained as little as possible, and worked on a rule "when in doubt do not drain." But in cases where it was really necessary to drain he would, in females, do so via Douglas's pouch and the vagina, and in males would make flank openings and close the abdominal wound as usual. He mentioned illustrative cases where he had done this. Replying to Dr. Tymms' question, he described in detail his method of dealing with such cases.

Dr. BLACKBURN showed tests illustrating the precipitation method of differentiating various blood stains and particularly useful in medico-legal cases. It was explained that by injecting an animal with a certain serum, after a time its serum will produce a specific reaction (precipitate) when added to a solution of this particular serum, and in this way a serum can be obtained which will show whether or no a particular blood is human or not, obviously important in many legal cases, where otherwise the usual chemical and microscopical tests cannot differentiate between mammalian bloods at least. This was the first time the test had been applied in an actual case in West Australia.

Dr. OFFICER mentioned the intention of the President to start on a trip to Europe before the next meeting, and with other members expressed the hope that he would have a good time while away.

The PRESIDENT thanked the members for the good wishes expressed.

The SECRETARY informed the meeting that he had seen the Customs authorities about the duty charged on the *B.M.J.*, and that they had admitted that the charge was a mistake and was illegal, and had promised that there would be no further attempts to collect it.

THE BATTLE OF THE CLUBS.

Auckland, N.Z.

THE friction that has existed in Auckland for over four years past between the friendly societies and the local section of the British Medical Association (says the *Auckland Herald* of September 13th) was brought before Parliament by the Hon. W. J. Beehan, M.L.C., who moved the following motion in the Legislative Council: "That the attention of the Government be called to a notice in the *British Medical Journal* of July 13th, 1907 (a journal circulating in New Zealand), to the following effect:—'Appointments vacant. Warning notice: Medical practitioners are requested not to apply for appointments in connection with clubs or other forms of contract practice in any of the towns or districts mentioned in the following table, or for any of the poor law and other appointments named, without first communicating with the hon. secretary of the division or branch, whose name is given in the second column of the table, or with the medical secretary of the British Medical Association, 6 Catherine-street, Strand, W.C.' " One of the names given in the second column referred to, he said, was that of Dr. Tracy Inglis,

hon. secretary of the Auckland division of the New Zealand Branch of the British Medical Association. Mr. Beehan related the history of the trouble, and quoted from a circular issued by the British Medical Association in Auckland in February, 1903, in which it was stated that the Association had passed the following resolution:—"That the members of the Auckland section of the New Zealand Branch of the British Medical Association pledge themselves to do all in their power to prevent any medical practitioners from being appointed to the position of surgeon to the United Friendly Societies' dispensary, and that they will ostracise any medical man who accepts such a position." The grounds for this circular and the passing of the resolution were that the doctor accepting the position would be sweated, inasmuch as it was represented he would have to attend 800 members of the society for a remuneration of £400 per annum, or 10s per member. Mr. Beehan stated that half the members of the friendly societies were single men, and the majority would not require medical attendance. He said that except in cases of epidemics the average sickness amongst the friendly societies' members was never more than 1 or 2 per cent. He had been informed by different medical men struggling in their profession that a position at £400 per year as surgeon to the Auckland Friendly Societies' dispensary would be a Godsend, but they dared not, so to speak, put themselves in the position of "blacklegs." The surgeon to the dispensary was to be allowed to practice privately, and he (the speaker) had no hesitation in saying that the position would have been worth £700. He read a letter dated the 8th inst., which he had received from Mr. P. J. Nerheny, the president of the Auckland Friendly Societies' dispensary, in the course of which he says: "I can safely say that the boycott is now as strong as it was in 1903, and certain to continue, because about eight months ago, when we established a board of doctors in connection with our medical institute, those doctors that came on to work for our board, and allowed private practice, were expelled from the British Medical Association at once." Mr. Nerheny went on to state that prior to these doctors taking over the friendly societies' work, three of them had consulting rooms at a certain chemist's shop, but the latter received notice from the Medical Association that he would have to get them out at once, or he would be boycotted. Notice was also given to another chemist to get others of the staff of the institute away. The first-named gave effect to the request, but the latter declined to do so. Mr. Nerheny stated that the doctors belonging to the British Medical Association would not consult with any of the doctors belonging to the Friendly Societies' Institute, but did all they could to hamper the latter in the execution of their duty. He also stated that the *British Medical Journal* had refused to publish advertisements for doctors for the Auckland friendly societies, because the latter were under a boycott in New Zealand. Mr. Beehan said that the men who were boycotting the friendly societies were those who climbed to success on the backs of the societies. He hoped the Government could do something to bring the two parties together.

The Hon. Dr. Findlay (Attorney-General) said it would be a dangerous thing to come in by coercive law and interfere with those who were trying to make the best bargain. The ventilation of the matter would probably achieve the end in view, and he personally would do all in his power to heal the differences complained of.

The motion was carried on the voices.

REVIEW OF CURRENT MEDICAL LITERATURE.

SURGERY.

Intestinal Obstruction.

Bloodgood (*Bulletin of the Johns Hopkins Hospital*, No 197, August, 1907) contributes a careful clinical and pathological investigation of the experience of Dr. Halstead's clinic in the Johns Hopkins Hospital of intestinal obstruction. He contributed some of the conclusions before the New York State Medical Society, in Albany, on January 30th. The conclusions in regard to the importance of early intervention in all cases, and the life-saving measure of enterostomy in late cases, is confirmed by Rubritius from Wölfer's clinic in Prague, by Simon, from Czerny's clinic in Heidelberg, and by Gobel, from Helferich's clinic in Kiel. Intestinal obstruction should be employed as a general term, and corresponds to the German term "ileus." All authorities recognise two groups—*strangulation ileus*, in which, in addition to obstruction to the lumen of the intestine, there is interference with the mesenteric blood supply; and *obturation ileus*, in which the blood supply of the obstructed portion of the intestine is not disturbed. In some cases the intestinal obstruction may begin as an obturation and end as a strangulation. It is quite true that in obturation ileus the patients may survive a longer period from the onset of the symptoms to the time of operative relief. Nevertheless, in either group immediate surgical relief gives the best results. The older view, favouring delay in obturation ileus, is emphatically discredited by all recent contributions. Intestinal obstruction from its onset should be looked upon as a surgical lesion, and no conservative means should be employed for its relief, except the washing out of the stomach and high rectal enemata. These should be used only in the early hours, and if relief is not immediate the abdomen should be opened. Any food, liquid or solid, or cathartics by mouth, is absolutely contra-indicated, from the moment of the first symptom until the patient is relieved. Morphia should not be given for the pain unless operation has been decided upon. These rules, simple as they may appear, have seldom, if ever, been followed with patients admitted to surgical wards. Intestinal obstruction is a relatively infrequent disease. Among about 20,000 patients admitted to the surgical clinic, Bloodgood found but 103 instances of ileus, and rarely did two of these cases come from the practice of the same physician. It should be the duty of surgical clinics to demonstrate to the physician by irrefutable figures that his patient's chances are tremendously increased by operative interference, if possible, within the first 24 hours, at least before the end of the second day. The more acute the symptoms of onset the more immediate must be the relief. Surgeons are in a better position than physicians to study the early clinical picture of intestinal obstruction. After every laparotomy this complication must be borne in mind. That surgeons have become more expert in the diagnosis is borne out by the fact that in Dr. Halstead's clinic, and in observations of the author in other hospitals, post-operative intestinal obstruction has been recognised early, and the mortality is strikingly less than in the group of patients first observed outside the clinic and then referred for operative treatment. In strangulation ileus there are two factors which give rise to symptoms—obstruction to the flow of intestinal contents, and interference with the circulation of the obstructed intestine. It is the interference with the blood supply that gives the acute symptoms of onset in

strangulation ileus: the intense pain, the peritoneal shock, and the primary reflex vomiting. Secondary vomiting, faecal in character, and distension are symptoms due to the obstruction, and may be looked upon as late symptoms—symptoms which one should not wait for in order to make a diagnosis. In obturation ileus the symptoms of onset present in strangulation are usually absent. The patient may complain of some abdominal pain, which is described more as a general discomfort than as acute agony. It is constipation that first attracts his attention, then distension, then vomiting, which may, in delayed cases, be faecal in character. It is difficult to explain the exact cause of pain, as the intestine is insensitive. It is possibly caused by the pull on the mesentery or the interference with the blood supply which affect the sensitive nerves at the mesenteric base. The pain in strangulated ileus is not always localised in the position of the strangulated gut, but may be referred to some other part of the abdomen, and may be intermittent or colicky in nature. The most characteristic symptom then of strangulated ileus is the sudden, intense abdominal pain. If situated in the right iliac fossa it may suggest appendicitis; in the gall-bladder area—gall-stone colic; if in the region of the kidney—renal colic. A patient, therefore, who complains of sudden abdominal pain of such intensity that he begs for relief should be examined most critically, and the possibility of an acute lesion demanding early operative relief should be considered. In the pain from strangulated ileus the shock is more marked than that observed in those cases associated with appendicitis, gall-stones or renal calculus, but as a rule is not so severe as that seen in acute hæmorrhagic pancreatitis. If the patient complaining of severe abdominal pain, nausea, and vomiting, is examined, one will find some symptoms of shock—the pulse is rapid, the face is pale, and the patient will state that he feels distinctly weak, as if he had been kicked in the abdomen, while the moment before the attack of pain he may have been in the best of health and strength. If the abdomen is now carefully examined one does not find the localised tenderness and muscle spasm, early signs in appendicitis and cholecystitis, but a more general muscle rigidity without tenderness; now and then the distended loop about the strangulation can be palpated (van Wahl's sign). The palpation of the distended loop may be looked upon as the pathognomonic symptom of strangulation ileus, but it can be distinguished only in the early hours before general distension obliterates it. Peristalsis is the next sign in strangulation ileus, and there is no doubt as to the interpretation of this symptom if it can be demonstrated. How often it can be made out in strangulation is impossible to state, but its absence should not be considered as excluding obstruction. Leucocytosis is a very important aid in the early recognition of intestinal strangulation; in an acute case of volvulus there was a leucocyte count of 34,000 three hours after the onset. Complete constipation is always present, but if the patient has not had a stool for a day or two before the onset of the acute attack, the first enema may bring away faecal contents. The later symptoms are: faecal vomiting, general abdominal distension, continuing absolute constipation, and the signs of autointoxication. Now the diagnosis is simple, but the chances of recovery, even though the operation be performed early in this stage, are few. In obturation ileus the acute primary symptoms are frequently absent. There is often a previous history of constipation and abdominal colic. In carcinoma of the large intestine there may be a history of blood in the stool, or intermittent diarrhoea and constipation. In this group of obturation ileus, Bloodgood has been im

pressed with the history of recurrent attacks of intestinal obstruction, that is, absolute constipation, vomiting (not faecal), and distension, which have been relieved after a day or two by cathartics and enemata. In one of the author's cases there was a history of five such attacks. In obturation from carcinoma of the large intestine the obstruction of the lumen may not be absolutely complete, and some little faecal matter and gas may pass and appear in the enema. When the obturation is in the small intestine, peristalsis is a constant early symptom. If the obstruction is high in the small intestine, distension is slight or absent and vomiting of a faecal character, early. In obturation the symptoms are more obscure than in strangulation ileus, but the constipation, even though there be no vomiting or peristalsis, should be regarded as suspicious; the following distension, even without vomiting, is still more suspicious. In obturation of the colon the distension may be extreme before vomiting takes place. From Bloodgood's experience in post-operative obstruction, and from the few cases that he has seen in the early hours of primary intestinal obstruction, he believes that it is not difficult to make a diagnosis at a period in which operative intervention promises an excellent chance of recovery. If practitioners will avoid giving cathartics indiscriminately, place such patients in bed, give them nothing by mouth, employ the stomach tube and rectal enemata early, make a careful abdominal examination and blood count, and avoid morphia if possible, he feels confident that they will be able to recognise intestinal obstruction in the early hours. The problems in the surgery of intestinal obstruction present increasing difficulties with the duration of the attack and the possible complications. Before operation the stomach should be washed out. Chloroform may be the best anaesthetic. The anaesthesia must be very carefully induced. The washing out of the stomach does not always prevent vomiting under narcosis, and in such cases chloroform is better than ether. If the exact position of the obstruction cannot be fixed, median laparotomy should be performed. If possible the obstruction should be found and relieved. If the intestine above the point of obstruction is distended and filled with fluid contents, it should be evacuated; and if the symptoms have been present over 48 hours, enterostomy should be performed in addition to the relief of the obstruction. The mortality of operation after 48 hours without enterostomy is so definitely higher than with enterostomy that there appears at this time no question as to the efficacy of this additional safeguard. The object of the enterostomy is to aid the patient in immediately disposing of intestinal contents and combating auto-intoxication. When the intestine is the seat of gangrene, the gangrenous loop must be taken out of the abdominal cavity. When there is obturation from new growth, one must decide between enterostomy or colostomy alone with a later operation for resection, and immediate resection. The earlier the operation takes place after the initial symptoms the easier to settle these questions, and the more frequently can the lesion of the intestine be relieved completely at one operation with the least mortality.

Inoperable Sarcoma: A further report of cases successfully treated with the mixed toxins of erysipelas and bacillus prodigiosus.

Coley (*Medical Record*, July 27th, 1907) presented six patients who had been successfully treated with the

mixed toxins of erysipelas and bacillus prodigiosus for inoperable sarcoma at the meeting of the Surgical Section of the New York Academy of Medicine on May 3rd, 1907. All of these cases were practically hopeless, as far as cure by any other known method of treatment was concerned. Three of these patients were well from 5 to 11½ years after treatment. Each case had been verified microscopically. Although the final results of Coley's work with the toxins were published in the *American Journal of the Medical Sciences* in March, 1906, the great majority of medical men are still uninformed of what the mixed toxins of erysipelas and bacillus prodigiosus really are, and ignorant of the results that have been obtained by their use in the treatment of hopeless, inoperable cases of sarcoma. Coley's original experiments, carried out in 1891 and 1892, with the co-operation of Dr. W. T. Bull, with 12 cases of inoperable sarcoma and carcinoma, in which he used the living cultures of erysipelas, form the inspiration and basis of the toxin method. From these experiments he learned two things: (1) That it was most difficult to produce erysipelas when desired; (2) that when produced there was considerable danger of the patient dying of the attack, two of the 12 cases having succumbed to the artificially-produced erysipelas. In four cases he was unable to produce an attack, although he made many attempts. He next tried sterilising the cultures by heat and found that the inhibiting action was apparently equally marked whether the cultures were living or dead. Roger's experiments in Paris showed that by growing bacillus prodigiosus with the streptococcus of erysipelas, the virulence of the latter was greatly increased. In the latter part of 1892 Coley began to use the mixed toxins. At first the erysipelas streptococcus was grown alone in bouillon for about 12 days, then the bacillus prodigiosus was added, and the two cultures were grown together for ten days longer, at the end of which time they were sterilised by heat of 60° C., and preserved by the addition of thymol crystals. None of the successful cases were treated by the erysipelas toxins alone. Late observations showed that the bacillus prodigiosus played an important part, as the best results followed from the very red toxins showing a large amount of the bacillus prodigiosus. Dr. Martha Tracy, of the Laboratory of the Huntington Cancer Research Fund, has been conducting a series of investigations into the chemical and biological nature of the bacillus prodigiosus and the mixed toxins, and has found the toxin of the bacillus prodigiosus to be one of the most powerful known in bacteriology. The process of preparation of the mixed toxins has been worked out by Dr. Tracy, and Coley has used almost exclusively for six months the toxins so prepared, and thinks they are more powerful and more efficient than the eosin preparations. A word of warning is given as to the caution necessary in using such a powerful preparation. It is important to begin in every case with a very small dose, not over ¼ minim, diluted with a little boiled water to insure accuracy of dosage. If the tumour is highly vascular it is better to begin the injections remote from the same until the susceptibility of the patient to the toxins has been ascertained. As a rule when giving injections into the tumour, only about one-fifth of the dose used for injections remote from the tumour is required to produce the same reaction. The dose should be increased by ¼ minim when given into the tumour; by ½ minim when injected remote from the tumour until the desired reaction is obtained. The best results are obtained by doses sufficiently large to produce severe reactions, say a temperature of 102° to 105°. Some patients can bear

daily injections, others can only bear three or four injections a week. The action of the toxins is both local and systemic. Sometimes the best results are obtained by giving the injections alternately into the tumour and remote from the same. The type of sarcoma that has shown the best results from the treatment has been the spindle-celled. Full details of 12 cases are given in the paper. Coley has now had 42 successful cases. Of these 17 were round-celled sarcoma, 17 spindle-celled sarcoma, 2 mixed-celled sarcoma, 1 chondro-sarcoma, 1 epithelioma. The late results in these cases were as follows:—21 well from 5 to 14 years, 26 well from 3 to 14 years, 10 well from 10 to 14 years.

DISEASES OF THE EAR, NOSE AND THROAT. The Operative Treatment of Pyæmia of Aural Origin.

Lebrowski (Warsaw) in *Monats für Ohrenheilkunde* for January, 1907, writes fully of six cases of pyæmia occurring in cases of middle-ear suppuration. He was very fortunate in that four of his cases made a good recovery after the sigmoid sinus had been freely exposed and the focus of the disease removed. The two fatal cases died—one of cardiac failure the second day after operation, and the other one during the second week after operation with symptoms pointing to thrombosis of the cavernous sinus. The author concludes:—1. There is no typical course of the disease, and it may be of any grade of severity. The operation itself will vary according to the pathological changes found after opening the temporal bone and exposing the sinus. 2. The focus of the disease must be completely removed from the bone, and this, with the simple exposure of the lateral sinus, is often enough to cut short the pyæmic process. 3. Antistreptococcus serum may be used with favourable results in the post-operative treatment. 4. Absence of pain in the mastoid process is no contra-indication for operative interference in cases of middle-ear suppuration. The author might have laid more stress on the prime importance of early interference where any suspicion even of septic phlebitis is present, and finally the author regards the onset of symptoms of thrombosis of the cavernous sinus as a sign of imminent death. He holds that it is not admissible to attempt to open the cavernous sinus.

Case of Septic Phlebitis of the Lateral Sinus.

Joutz (*Annals des Maladies de l'Oreille*, March, 1907) records a case of suppurative thrombo-phlebitis of the lateral sinus and bulb of the jugular, a sequel to chronic purulent otitis. A lad of 14 had suffered from double intermittent otorrhœa for 12 years, dating from an attack of measles. When seen by the author he had had a copious discharge from the left ear for four days with auricular pain and headache of the same side, and he also complained of vertigo and sleepiness. The temperature was high, with marked oscillations. Examination of the ear revealed a perforation of the drum-head, partially obstructed by granulations. There was pain on pressure over the mastoid process, and palpation along the course of the internal jugular elicited tenderness. A radical mastoid operation was performed; the wall of the sigmoid sinus, which was found to be involved by osteitis, was removed with the gouge, exposing that vessel in its whole extent. The sinus was then freely opened, and purulent clots, which occupied its lumen, were removed with a curette; no hæmorrhage followed from either end; as it was possible the thrombosis had extended to the bulb, the latter was exposed with a rongeur. After introducing

a piece of gauze into the bulb by means of fine forceps, it was found on withdrawal saturated with pus; there was no trace of blood. Insertion of a gauze drain into the bulb and sinus completed the operation. The pyæmic temperature continued, the dressings were changed every two days, and on each occasion endeavours were made to remove clots from the proximal and distal ends of the sinus, and during the third dressing free hæmorrhage occurred from the former. The pyæmia ran its usual course. The day following the operation there was a painless suppurative arthritis of the metatarso-phalangeal joint of the great toe, and some days subsequently a well marked patch of congestion was noted in the lower lobe of the right lung. Convalescence commenced one month after operation, and two months later the operation cavity had healed.

Hypopharyngoscopy.

Barwell, in the *Lancet* (August 17th, 1907), details a case in which he tried this new method of examination. Barwell says that this method was devised by Von Eicken in Professor Kilbau's clinic for the examination of what he calls the hypopharynx. This is that part of the pharynx which lies below the aperture of the larynx. It is especially difficult of examination, for the posterior surfaces of the arytenoid and cricoid plate lie in contact with the posterior pharyngeal wall, and are not exposed to view in the laryngeal mirror. Also it is by no means easy to maintain Kilbau's tubes in position at this spot; they cause great discomfort unless a general anæsthetic be given, and this is not always advisable. Moreover, the use of Kilbau's tubes is not without risk in cases of ulceration in this region. As this part of the pharynx is often the seat of important lesions, and, especially in women, is frequently the site of an epithelioma, Barwell says, any promising method for its examination becomes of great importance. Von Eicken's method is briefly this: thorough cocaineisation of the epiglottis and interior of the larynx; then a stout laryngeal probe covered with moistened cotton wool is passed below the cord, and traction is made forwards and slightly upwards in the anterior commissure. By this means the whole larynx is pulled forward and away from the posterior pharyngeal wall, and in the case in question revealed what was only suspected before, namely, extensive inoperable involvement of the pharynx just below the level of the upper border of the arytenoid.

Purulent Otitis Media in Infants.

Kishi, in the *Archiv f. Ohrenheilkunde* (abstracted in the *Journal of Laryngology* for August, 1907), reports several cases of purulent otitis media in infants, in whom this disease was associated with digestive disturbances, or flatulence, diarrhœa, emaciation, and which symptoms all ceased when the ear disease was cured. In commenting on these cases, Kishi draws attention to the circumstance that there was no reddening of the drum membrane, although paracentesis in each case was followed by the discharge of pus, stinking in one case. He attributes the diarrhœa to the passage of pus into the alimentary canal by way of the Eustachian tubes. It is pointed out by the abstractor that a toxæmic diarrhœa is a frequent incident in all forms of septicæmia, just as frequently, perhaps, in cases where pus cannot obtain an entrance to the alimentary tract, as in cases where such entrance is likely, but that at the same time this criticism does not invalidate the lesson of such cases as these, which is to examine the ears of infants with the utmost precision as a matter of course, regardless of the apparent drift of the symptoms.

THERAPEUTICS.

Enuresis and Fæcal Incontinence.

Still (*Clinical Journal*, April 24th, 1907) points out that a careful examination of the urine is a necessary preliminary to the effective treatment of enuresis, since a clue is often thus obtained. As threadworms are so commonly a cause of this condition, a dose of santonin with a small dose of calomel, say 1 to 2 grains, should be administered in every case, and careful examination of the stools resulting from this aperient. Tincture of belladonna should, however, be the mainstay if no worms be found. This must be given in large and continually increasing doses until physiological effect or the limit of tolerance is reached. The initial dose for any child over 12 months should be 5 minims, and for a child over 5 years a dose of 10 minims can usually be safely administered. Then every fifth or sixth day the dose should be increased by 2½ minims until either the enuresis is stopped or the limit of tolerance is reached. This dose should be maintained for a fortnight and then gradually reduced. If the tincture of belladonna when thus prescribed is not efficient, then tincture of lycopodium in doses of 12½ minims increased by 2½ minims up to 20 minims should be combined with the belladonna. Tincture of nux vomica in 5 minim doses, potassium bromide or phenacetin, and fluid extract of *rhus aromatica* (the latter in doses the same as the tincture of belladonna), are also useful. Ergot in doses of 20 to 30 minims of the extract proves effectual in some cases. Still is opposed to all local treatment unless to remove some obvious local cause. In the treatment of fæcal incontinence Dover's powder in doses of 1½ to 3 grains three times daily, combined with a mixture of tincture of belladonna, tincture of nux vomica, potassium bromide and liquor arsenicalis is generally efficient. Careful regulation of the diet is essential, and all fluids should be cold or only just lukewarm.

Chloride-free Diet in Scarlatina.

Deléande (*L'Echo Medical du Nord*, abstracted in the *Scottish Medical and Surgical Journal*, May, 1907) recommends very strongly the treatment of scarlatina and scarlatinal nephritis with a diet from which chlorides are as far as possible excluded. He considers the main principle in the treatment of any infectious disease is to secure free elimination and to avoid any substances which may hamper the free action of the kidneys. He has therefore adopted the plan of treatment first suggested by Dufour in 1905, with a view to prevent the retention of chlorides in the system and the oedema which may result from their accumulation. He points out that milk which contains from 2 to 3 grammes of salt per litre is by no means an ideal diet for scarlatina. Various writers have already proved that a chloride-free diet is perfectly safe in that disease. It is true that milk has the advantage of being diuretic in its action, but the excess of salt puts an undue strain upon the kidney. Deléande argues that milk is insufficient as a food for adults, and a more varied diet keeps up the strength better. He suggests dried or fresh vegetables, eggs, and even meat in small quantities, given with some diuretic drink. This diet may be employed as a routine in scarlatina and even in cases which have developed acute nephritis. Two such cases of nephritis he reports at length, with excellent results. One of these patients, a child of six, admitted with oedema, pleuritic effusion, hæmaturia and epithelial casts, was given two eggs daily, purée of rice with sugar, and potatoes. She improved steadily, but suffered a

relapse when salt was added to the diet as an experiment. In addition to the above diet, fish, meat, jam, fats, and bread made without salt can be given in cases of ordinary scarlatina as soon as the condition of the throat permits the swallowing of solids.

Pilocarpine an Adjuvant in the Treatment of Syphilis.

Robinson (*Medical Record*, June 15th, 1907) states that the use of pilocarpine in the treatment of syphilis is so seldom referred to in treatises on the subject, and he has had such brilliant results from its use that he now strongly advocates it. He does not wish to substitute pilocarpine for the iodide and mercury, but in certain cases of this disease, in spite of saturating the system with mercury, the symptoms fail to be influenced, and even become aggravated. He finds by experience that nothing will stop mercurial salivation so effectually as small doses of pilocarpine; this is much more effective than potassium chlorate or atropine. Cutaneous syphilides, which will obstinately resist the persistent administration of mercury, will disappear rapidly if pilocarpine be administered for several days, either in addition to the mercury, or if the mercury be discontinued altogether (provided that the patient has had thorough mercurial treatment). The pilocarpine should never be prescribed in combination with other remedies—always alone. He prescribes the alkaloidal salt, either in the form of pills containing 1-32 grain, two of these pills to be taken three times a day, sometimes increasing to three or four pills per dose, or the following solution: Pilocarpine hydrochloride gr. 2, aq. chloroform 4 oz., I. oz. to oz. ii to be given three times a day. In no case has any cardiac depression or any unfavourable symptoms been noted. He lays down the following propositions:—1. Pilocarpine is a most remarkable glandular eliminant, and glandular elimination is one of the most important factors in the treatment of syphilis. 2. Pilocarpine is of value in all secondary manifestations of the disease. 3. There are many cases which become intolerant to the further use of mercury; the system seems supersaturated, and continuing the mercury in such cases means injuring the patient. Discontinuing the mercury, giving pilocarpine in the interval, enables us to resume the former drug with excellent effect. 4. Pilocarpine should be prescribed alone, most conveniently in pill form.

Treatment of Insomnia in Heart Disease.

Weihered, in *Folia Therapeutica*, remarks that sleeplessness is often one of the most prominent causes of distress in chronic cardiac disease. Of all drugs he has found chloralamide the most satisfactory. It may be given at first in doses of from 20 to 30 grs., suspended in mucilage or dissolved in rectified spirit. The dose may be increased until from 60 to 70 grs. are given nightly. The use of the drug should, however, be suspended at intervals, and, of course, if possible, the dose should be gradually lowered. Veronal (gr. v.) he has also found useful in cardiac cases. Sulphonal, trional, and tetronal have not yielded such uniform results in the cases in which he had prescribed them. Sleep is essential in cardiac cases, and occasionally resort must be had to opium or morphia, although symptoms giving rise to anxiety are sometimes manifested, particularly if there are pulmonary complications. Apprehensiveness, irritability, restlessness, are prominent symptoms of failing heart. The addition of bromide of sodium or hydrobromic acid to the treatment suggested above will often have a calming effect.

MEDICAL MISCELLANY.

At the beginning of March, as during the preceding weeks, an average of five cases of malaria a week were reported at Forty Mile Camp, in the Pedro Miguel, Panama, where the population is something under 750. About the middle of March, however, the number of reported cases of malaria increased suddenly to 20 a week. It was concluded that there was some collection of stagnant water in the neighbourhood which was breeding mosquitoes of the anopheles type. After a few days the inspector found an old scow left over from the days of the French in Panama, which had been overgrown by tropical forests, and so had escaped notice. This was at once emptied of water. At the end of three weeks the number of reported cases dropped again to less than five, and the mosquito theory as the source of malaria was once more vindicated.

The State Board of Health, Iowa, U.S.A., issues a license to itinerant physicians when the applicant has complied with all the requirements of the law, but the board is warranted in going to the extreme in the question of satisfying itself that the applicant does comply with the law. The applicant must have a physician's license before he can obtain a license as an itinerant, and furthermore must satisfy the board as to his competency and morality.

Moored at the dock at the foot of West Sixteenth-street, New York, on the North River, is an old ferry boat which is now used as a day camp for consumptives. Patients are sent to the boat after being examined and passed by the doctors in charge of the Associated Tuberculosis Dispensaries. They remain on board until five o'clock, when they return to their homes. During the day they are given from three to eight eggs, and from three to eight glasses of milk. They supply themselves with other food, except coffee, tea, bread and butter, etc.

The health report of Manila shows that no smallpox, cholera, or other contagious disease was present during the past semester. This is said to be the first time in the history of the Philippine Islands that such a condition has existed.

The Board of Health, Hawaii, is about to build a maternity hospital and nursery at the Leper Settlement at Molokai. The plan is to provide a hospital, open to all women of the settlement, and a nursery where infants can be taken at once and cared for, thus removing them from the danger of infection.

Last year the German Association of Medical Editors decided to prepare a list of authors, who are accustomed to furnish, for pay, articles recommending new remedies and the preparations of chemical manufacturers. Their articles are neither to be published nor abstracted in the journals of the members of the Association. The Association hopes, through common effort, to eliminate a canker from which the German medical journals and, through them, the physicians have suffered in late years.

The report of the past year's consumption of alcohol in Austria, when taken in conjunction with the vital statistics, shows that those classes of the population consuming the largest quantities of alcohol show also the largest decline in the birth-rate. While the mean birth-rate for the decade 1890-1900 was 35 per thousand, during the years 1900-1906 it fell to 32 per thousand. The greatest fall was found in those countries where the consumption of alcohol (not light wines, but beer, gin,

whisky or cognac) has been increasing, especially in Galicia, Bohemia, and the Alpine regions. In these localities the birth-rate stands at from 24 to 25 per thousand. It is interesting to note, however, that in the wine drinking countries (Tyrol and the Mediterranean provinces) the birth-rate is fairly constantly 33 per thousand.

London hospitals appear to suffer from a chronic lack of money. University College Hospital in London has recently issued an appeal for further support, stating that since the beginning of last year the committee had been compelled to sell over £12,500 worth of stock to meet pressing tradesmen's bills. Few, if any, of the large London hospitals are sufficiently prosperous to keep all their beds going.

The Brompton Hospital for Consumption, the largest hospital in Great Britain for diseases of the chest, has established a large sanatorium near Frimley, some 400 feet above the sea level. The cost of the site, buildings and equipments amounts to £73,000. It is the largest sanatorium in the kingdom, stellate in form, two stories high, and contains 106 beds. The patients are put to such useful work as they are capable of performing. In 1906 110 patients were discharged with "total arrest" of the disease.

Favourable results are reported from anti-typhoid vaccination in the British army. The vaccine is prepared after the method of Sir A. E. Wright, its author, but in the light of research work continuously carried on at the Royal Army Medical College during the last two years, modifications have been made in a few particulars. A non-virulent strain of typhoid bacilli is used, but the relative value of virulent and non-virulent cultures has not been definitely settled. In August and September, 1905, men of the 17th Lancers were inoculated, but of these 23 refused to accept a second dose. The regiment reached India September 28th. About the end of October typhoid fever broke out, and in the few months following 63 cases were observed. With two exceptions they occurred in the uninoculated portion of the regiment, and both these exceptions were men who refused the second inoculation.

The annual congress of the British Royal Institute of Public Health was opened on June 29th in London. Sir James Barr, of Liverpool, said that if the money spent on the treatment of disease were diverted to the preservation of health, our large hospitals would not be half filled, purveyors of synthetic remedies and artificial food might find a suitable place in homes for the destitute, the necessity for surgeons and specialists would largely disappear, and physicians and general practitioners would be fully occupied in advising their clientele on the preservation of health. It was possible, Dr. Barr said, to have some process of artificial selection in the human race, and the nation which would produce the finest race would win in the long run. If the State and parents would do their duty, he thought the decline in the birth-rate would soon be arrested.

A law has been enacted in Denmark regarding syphilis. Under this law the police may punish as vagabonds females who cannot show their ability to earn a living in a decent manner. Anyone suffering from syphilis is entitled to free attendance at the hands of certain medical men appointed for this purpose and paid from public funds. The Act has very materially reduced the incidence of the disease.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

The Meeting of the British Medical Association—Epsom College—The Imperial College of Science and Technology—Death of Sir William Henry Broadbent—Sleeping Sickness of Uganda—The League of Mercy—Royal College of Surgeons.

THE 75th annual meeting of the British Medical Association was held this year at Exeter. The session opened on Saturday, July 27th, when the annual general meeting of the Association was held in the Royal Public Rooms. The President of the year is Dr. Henry Davy, physician to the Royal Devon and Exeter Hospital. On Sunday morning service was conducted in the Cathedral by the Bishop of Crediton, who preached from the text, "The gifts of healing by the same spirit." In the evening Prebendary Dangar preached upon "Research." Both services were largely attended. On Monday afternoon the civic authorities welcomed the Association at a reception held in the Guildhall. Alderman W. H. Reed, the Mayor of Exeter, was accompanied by Sheriff Pickard, the president, president-elect, and many of the officers of the Association. The Mayor offered the Association a hearty welcome and wished the meeting every success. On Monday evening Dr. Davy entertained a number of guests to dinner at the New London Hotel. After dinner an adjournment was made to Southernhay House, the residence of the president-elect, where Miss Davy was "At Home." On Tuesday morning a special service was held in the Cathedral, at which many members of the Association attended in academic robes. The sermon was preached by the Bishop of the diocese from the text, "They that are whole need not a physician, but they that are sick." During the afternoon the adjourned general meeting was held in the theatre. The retiring president (Dr. Reeve, of Toronto) revised the events of the year of his presidency, and introduced his successor, Dr. Davy, who took the chair and expressed gratitude for his election. A vote of thanks to the retiring president was carried by acclamation. It was then resolved to accept the invitation of Sheffield for the meeting of 1908; and Mr. Simeon Snell was announced as the president-elect for next year. The evening was devoted to the introduction of foreign guests and colonial delegates, who were presented by Dr. Russell Coombe. Thereafter Dr. Deas introduced the president, Dr. Davy, to the meeting. After a few words of thanks, the president said it was his pleasing duty to announce that the Middlemore prize, consisting of an illuminated address and a cheque for fifty pounds, had been awarded to Mr. Sydney Stephenson for his essay on "Ophthalmia Neonatorum, with Special Reference to Causation and Prevention." The president was then presented, on behalf of the South-Western Branch of the Association, with an heraldic jewel in commemoration of his year of office, after which Dr. Davy delivered his presidential address on "Science in its application to National Health." At the conclusion of the address a vote of thanks was moved by Professor Osler and seconded by Sir Philip Sydney Jones. On Wednesday the address in Medicine was delivered by Dr. Hale White, who chose for his subject "A Plea for Accuracy of Thought in Medicine"; and on Thursday the address in Surgery was given by Mr. Henry Tretham Butlin, the text of whose oration was "On the Contagion of Cancer in Human Beings: Autoinocula-

tion." On Friday evening the popular lecture, which was first instituted three years ago, was delivered by Sir John William Moore, of Dublin. He gave his address the title of "Weather, Climate and Health," and succeeded in keeping his large audience keenly interested in the general subject of meteorology and its influence on the health of the individual and of the nation. The annual dinner of the Association was held on Thursday evening, under the chairmanship of the president, and at its conclusion the company adjourned to the Rougemont Hotel, where a reception was held by the ladies of Exeter. On the afternoon of the same day a garden party was given by the Lord Bishop of Exeter at the Palace, and was attended by upwards of 2000 guests. Various societies took the opportunity of the Association Congress to hold their annual meetings—notably the New Sydenham Society, the Continental Anglo-American Medical Society, and the Irish Medical Schools and Graduates' Association. The meeting was favoured with moderately fine weather, and it was generally admitted by those who were present to be one of the most successful and pleasant of the many previously held. All the sections were kept busily occupied, and the work done by them was of a high order of merit and full of interest. The pathological museum, which was housed in the Bamfield Hall, contained an unusually varied and instructive collection of specimens, both macroscopical and microscopical. In place of the usual guide-book, the Exeter meeting of the Association was commemorated by a volume entitled, "A Book of the South-West," the object of which was stated to be to "provide a reliable work of reference for those who may be called upon to recommend a locality in Devonshire or Cornwall either for a short stay or for a permanent residence."

The annual prize distribution at Epsom College took place on July 27th, and was attended by an unusually large number of relatives of the boys and well-wishers of the College. The day being beautifully fine, the well-kept lawns and attractive grounds of the breezily situated school were seen at their best. The past year has been a prosperous one, and the headmaster was able to report favourably on the successes achieved by the boys, on the high level of health which had been maintained throughout each term, on the excellence of the work accomplished, and on the high tone and *esprit de corps* which had been the school's unbroken experience throughout the fiftieth year of its existence. Special interest attached to this year's speech day, because advantage was taken of it to unveil a large stained glass window erected in the chancel of the chapel to commemorate the attainment by the College of its jubilee. The ceremony of unveiling was performed by Mr. Henry Morris, President of the Royal College of Surgeons of England, himself an old Epsomian and honorary treasurer of the College. In the course of his remarks, Mr. Morris said he was sure it would be admitted that the window was a tribute worthy of the occasion, an ornament to the church, and an expression of the veneration and reverence which was becoming to the solemnity and sanctity of a house devoted to Divine service. As a work of art it would be a permanent source of gratification and satisfaction to the donors, whilst it would recall to the minds of those who looked upon it many examples of self-sacrifice, courage, benevolence, and human kindness. He trusted the window would be an incentive to further steps being taken in the future, for the enlargement and improvement of the body of the chapel to make it in keeping with the chancel which this memorial window now adorned. He felt certain that present and future

Epsomians would regard this stained glass as a witness of the fact that Epsomians of the pre-jubilee period looked back upon their *Alma Mater* with pride and gratitude, and carried the memory of their old school in their hearts with affectionate regard. He ventured to express the hope that those who were now at the College and those who would be their successors would find in the subjects depicted in the window promptings to conduct rightly their future careers. The dedication service was then proceeded with by the Bishop of Winchester. Subsequently an adjournment was made to the big schoolroom, where the prizes were distributed by the Bishop of Winchester. In an introductory speech the headmaster, the Rev. T. N. H. Smith-Pearse, reviewed the work of the year and spoke hopefully of the future prospects of the school. The Very Rev. the Dean of Winchester, before handing to the boys the prizes they had won, addressed to them a few words of wise and humorous advice. He impressed upon them the necessity of training themselves in habits of observation, and the desirability of encouraging to the full the development of the imagination. He reminded them that the floor of the classroom was littered, not with shavings, but with wasted hours, lost opportunities, and spoiled lives. The Rifle Corps Cup was presented to Carr House, for the third year in succession. The swimming cups were won by Sturridge, Palethorpe, and Hughes. In the grounds, the Cadet Corps subsequently engaged in manoeuvres, and a gymnastic display was also given by the boys. Refreshments were provided in tents, and music was supplied by a military band.

The offer of nomination for appointment by the Crown on the governing body of the Imperial College of Science and Technology has been accepted by the Earl of Crewe, Lord President of the Council, Mr. Gerald W. Balfour, Sir Francis Mowatt, Sir Julius C. Wernher, Sir William H. White, and Dr. MacAlister, Principal of the University of Glasgow. The other persons nominated as first members of the governing body are:—By the President of the Board of Education—Mr. A. H. D. Acland; Mr. F. G. Ogilvie, a Principal Assistant Secretary of the Board of Education; Mr. J. C. G. Sykes, an Assistant Secretary of the Board; and Dr. R. T. Glazebrook, Director of the National Physical Laboratory. By the University of London—Sir E. H. Busk, Past Vice-Chancellor of the University; Professor Capper, Professor Farmer, Sir Henry E. Roscoe, and Sir A. W. Rücker, Principal of the University. By the London County Council—Mr. A. A. Allen, M.P., Mr. H. Percy Harris, Chairman of the Council; Sir C. Kinloch-Cooke, Mr. R. A. Robinson, and Mr. J. T. Taylor. By the City and Guilds of London Institute—The Earl of Halsbury, Chairman of the Council of the Institute; Sir J. Wolfe Barry; Sir Owen Roberts, Clerk to the Clothworkers' Company; Sir Walter S. Prideaux, Clerk to the Goldsmiths' Company; and Sir John Watney, Hon. Secretary of the Institute. By the Royal Commissioners for the Exhibition of 1851—Viscount Escher and Lieutenant-Colonel Sir Arthur Bigge. By the Royal Society—Sir Archibald Geikie. By the Professorial Staff—Professor Tilden, Professor Gowland, and Professor Dalby. By the Institution of Civil Engineers—Sir Alex. B. W. Kennedy, President of the Institution. By the Institution of Mechanical Engineers—Mr. T. Hurry Riches, President of the Institution. By the Institution of Electrical Engineers—Mr. R. Kaye Gray, Past President of the Institution. By the Iron and Steel Institute—Sir Hugh Bell, President of the Institute. By the Institution of Naval Architects—Dr. F. Elgar. By the Society of Chemical

Industry—Dr. E. Divers, Past President of the Society. By the Institution of Mining Engineers—Mr. A. Sopwith, Past President of the Institution. By the Institution of Mining and Metallurgy—Mr. W. McDermott, Past President of the Institution. The Charter of Incorporation was issued on July 18th. The first article states the name of the new institution, and the second describes the purposes for which it has been established. The third article provides that the President of the Board of Education will be the visitor of the College, and the fourth article gives the names of the governing body as recorded above. The functions and powers of the governing body are described in the fifth article, and in the sixth provision is made for the creation of a department to be known as the "Royal School of Mines," which shall have power to issue diplomas to students who come up to the necessary standard of technical knowledge. The relations of the Imperial College and the University of London are thus dealt with:—"Subject to compliance with the statutes of the University of London and pending the settlement of the question of the incorporation of the Imperial College with that University, the Imperial College shall be established in the first instance as a school of the University. The governing body shall enter into communication with the University of London with regard to the co-ordination of the work of the Imperial College with the work of the University and its other schools, and for the purpose of carrying out or facilitating such co-ordination may enter into such arrangements either by way of transferring or exchanging departments of instruction or otherwise, and upon such terms as may be agreed upon between the governing body and the University."

Sir William H. Broadbent, Bart., K.C.V.O., M.D., F.R.S., etc., died in London on July 10th, at the age of 73. Some months ago he had a severe attack of influenza, followed by a pleuro-pneumonia which culminated in an empyema. He made a slow but apparently satisfactory recovery from the operation which this condition necessitated, but did not again become well enough to resume professional work. About a week before his death he was seized with a succession of rigors, pyrexia, and other evidences of septic poisoning, and he ultimately succumbed to infective endocarditis. Sir William was born in 1835, and was a son of the late Mr. John Broadbent, of Longwood Edge. He was educated first at Huddersfield and Owen's College, Manchester, and subsequently in the Medical School of St. Mary's Hospital, London. He became M.B. (Lond.) in 1858 and M.D. in 1860. He was a Fellow of the Royal College of Physicians, and he held the office of censor for two terms. He was on the staff of St. Mary's Hospital as well as of other hospitals of minor importance. Throughout his career he was president of many medical societies, and he took an important part in the learned life of London. The late Queen Victoria, three years before her death, appointed him Physician Extraordinary, and the King on his accession confirmed him in the office of Physician in Ordinary, which he held when the King was Prince of Wales. He contributed largely to the literature of his profession. The work for which he will be longest remembered was that which he carried out in connection with diseases of the heart and circulation; but he also devoted considerable attention to the study of diseases of the nervous system. It was his work in connection with this subject which won for him the honour of election as a Fellow of the Royal Society. His professional attainments were widely recognised in this country—the Universities of Edinburgh, St.

Andrew's, and Leeds having each in turn conferred upon him an honorary degree. Distinctions had likewise reached him from abroad in the shape of honorary membership of the principal medical societies of Berlin, Vienna and other great cities, while universities in Canada and America had given him degrees, and he had been appointed to the Commandership of the Legion of Honour. At the hands of the Crown his services and professional standing were rewarded in 1893 by the creation of a baronetcy in his favour, and in the year of the coronation he was made K.C.V.O. Sir William Broadbent married in 1863 a daughter of Mr. John Harpin, and is survived by his wife and five children. He is succeeded in the title by his eldest son, John Francis Harpin, who was born in 1865 and is in practice as a physician.

According to Reuter's Agency, the Government has decided that the scheme put forward by the Commissioner of Uganda for the suppression of the "sleeping sickness" in that protectorate is to be adopted, and the Treasury has authorised the expenditure of the funds required for this work. According to Mr. Hesketh Bell's plan the natives are to be removed from the fly-infested district on the shores of Lake Victoria to healthy locations inland. The sick are to be placed in segregation camps, where they will undergo the atoxyl treatment. It is estimated that some twenty thousand persons will have to be dealt with in this manner. It is further intended that all landing-stages along the shore of the Victoria Nyanza shall be freed from the presence of the tsetse-fly by means of a complete clearance of vegetation. Fords, ferries, and waterholes will be similarly dealt with, and it is hoped that by constant and consistent efforts in this direction the "sleeping sickness" will gradually be stamped out in Uganda. It is a matter for satisfaction that the chiefs fully appreciate the steps that are being taken, and are working loyally with the Government in helping to stamp out what has already proved a terrible scourge in Uganda.

At the invitation of the Prince and Princess of Wales a reception was held on July 8th in the grounds of Marlborough House in support of the League of Mercy. The guests were invited for four o'clock, but previously to this about 130 of the presidents and lady presidents of the League assembled in the saloon of Marlborough House, being introduced by Lord Wolverton, and a report of the work of the League during the past year was read by Mr. J. Harrison, M.V.O., one of the hon. secretaries. The report stated that a grant of £18,000 had been made to King Edward's Hospital Fund for London, as well as small grants of money to a large number of country hospitals. A list of those to whom the Order of Mercy had been awarded by the King was then read by the honorary registrar, Mr. E. W. Wallington, C.M.G., after which the Prince of Wales in a short address congratulated the members of the League on the results which had been obtained. An adjournment was then made to the garden, where about 1100 members of the League were assembled. The band of the Portsmouth Division of the Royal Marine Light Infantry was in attendance and played the National Anthem as their Royal Highnesses entered the grounds and took up their position at the steps leading to the house. They were accompanied by their children—Princess Mary, Prince Albert, and Prince Henry. The ladies and gentlemen who had been awarded the Order of Mercy were then presented, after which the Prince and Princess walked among the guests. Refreshments were served at a buffet in the grounds, and their Royal Highnesses took tea in a marquee, to which a few guests were invited.

The quarterly meeting of the Council of the Royal College of Surgeons of England was held at the College on July 11th. Mr. Mansell Moullin, Mr. Frederic Eve, Mr. Bruce Clarke, and Mr. C. J. Symonds, the successful candidates at the recent election of Fellows to the Council, were introduced and took their seats as members of the Council. Mr. Henry Morris was re-elected president, and Mr. W. Watson Cheyne, F.R.S., and Mr. Rickman J. Godlee were elected vice-presidents of the college for the ensuing collegiate year. The following professors and lecturers were also appointed for this period:—Hunterian Professors: Dr. William S. Handley, M.S. (Lond.), one lecture on "Therapeutic Criteria in Cancer"; Dr. Victor Bonney, M.S. (Lond.), three lectures on "The Connective Tissues in Carcinoma"; Mr. Donald Armour, B.A., M.B. (Toronto), three lectures on "The Surgery of the Spinal Cord and its Membranes"; Mr. Arthur R. Thompson, M.B., Ch.B. (Victoria), two lectures on "The Anatomy of the Long Bones Relative to Certain Fractures"; and Dr. Frank C. Shrubbsall, M.A. (Cantab.), three lectures on "The Physical Anthropology of the Pigmy and Negro Races of Africa." Arris and Gale lecturers: Dr. Francis A. Bainbridge, M.A. (Cantab.), one lecture on "The Pathology of Acid Intoxication," and Mr. Major Greenwood, jun., two lectures on "The Physiological and Pathological Effects which follow Exposure to Compressed Air." Erasmus Wilson lecturers: Mr. S. G. Shattock, one lecture on "Ovarian Teratomata"; Dr. John W. H. Eyre, M.S. (Durham), one lecture on "The Surgical Importance of the Pyogenetic Activities of *Diplococcus Pneumoniae*;" and Mr. Leonard S. Dudgeon, M.R.C.P. (Lond.), one lecture on "Infection of the Urinary Tract due to *Bacillus Coli*." The President reported that by the death of Miss Moncrieff Arnott the legacy of £1000 bequeathed to the college by Mr. James Moncrieff Arnott, a former president of the college, became payable to the college, and that by her will Miss Arnott had left to the college an oil painting of her father. The museum committee submitted the revised edition of the catalogue of the physiological series of comparative anatomy in the museum, and also submitted a revised edition of the catalogue of the osteological specimens (man). The President reported that the vacancy on the court of examiners caused by the retirement of Mr. Golding Bird would be filled up at the next meeting of the council on the 25th inst. A vote of thanks was presented to Sir John Tweedy for presenting "Rymer's *Fœdera*," 20 volumes folio, published in the year 1711; and the council accepted the resignation of Mr. C. R. Hewitt, assistant in the library, and expressed their thanks to him for his services to the college during the past 22 years.

ON THE POSSIBLE USE OF ATROPIN IN THE TREATMENT OF ACUTE BED-SORES IN MYELITIS.

(To the Editor of the Australasian Medical Gazette.)

Sir,—I have had for the last two months, and still have under my care, a case of acute transverse myelitis in a young and otherwise healthy man, aged 28 years. The case is of some interest, as the lesion on the right side appears to have involved the fourth cervical segment, that is, to have affected the right phrenic nerve, and all the shoulder and other muscles of the right arm are wasted, the left arm is also slightly wasted, and the left lower intercostals as well as the right were paralysed. All the large joints below the lesion are injured, that is, are painful and grate on movement, and he has complete paraplegia.

My main motive for briefly describing this case is to draw attention to the acute bed-sore from which this patient is suffering. It is, I believe, generally admitted that these acute bed-sores are due to deficient or obstructed blood supply, through pressure. Such obstruction must, I think, be greatly assisted by a low blood pressure. I have all through the course of this case noted an exceedingly low pressure, as estimated by the fingers only.

Lastly, my attention had been directed to a paper in the *B.M.J.* of December 22nd, 1906, by Hunt and Rapeau, on the action of cholin on the blood pressure, and later to Professor Halliburton's Oliver Sharpey Lecture in *B.M.J.*, May 4th, 1907. In both of these attention is drawn to the enormous power cholin possesses of lowering blood pressure, and to the fact that this may be prevented by atropin.

Moreover, Halliburton and Mott show that cholin is always a product of degenerating myelin. The practical point is that I have placed my patient on fairly large doses of atropin, and that a bed-sore as large as a man's hand, which had reached the sacrum and destroyed part of the bone, is now healing.

I do not by any means, in this case, jump to conclusions, more particularly as atropin and a water-bed arrived together; but I should be very glad if in a similar case, say of acute transverse myelitis, atropin were tried at once, and its effect upon the blood pressure accurately determined, with a view to the possible prevention of these acute bed-sores.—I am, etc.,

HENRY S. MAW, L.S.A. (Lond.).

Tumbarumba, N.S.W., Sept. 13, 1907.

IS THE PRESENT PANDEMIC REALLY INFLUENZA?

(To the Editor of the Australasian Medical Gazette.)

Sir,—In your last issue appears a paper upon the present pandemic of so-called influenza. No mention is made of any bacteriological examination of the sputum. In our district the incidence of the disease has been almost universal, yet not in one single case have I or my colleague, Dr. Throsby, succeeded in finding the influenza bacillus, nor indeed any bacillus whatever. Moreover, we have not once failed to find an encapsuled diplococcus which is decolourised by Gram's method. Moreover, in our district at any rate the cases have been such that no careful observer could have mistaken the disease for that caused by Pfeiffer's bacillus. It is a universally acknowledged fact that this bacillus shares with that of diphtheria and the coccus of rheumatic fever the property of producing a toxin intensely depressing to the heart. This is the most notable and constant feature of true influenza. In every case of this disease which I can recollect seeing the pulse-temperature ratio has been high. In the present epidemic this ratio has been low in every case which has come under my notice. Indeed I have never observed it so low in any other fever, not even typhoid.

Let me quote one case: A lady, not of robust constitution, on the fifth day from the onset of catarrhal symptoms had a temperature of 102·8° and a pulse of 78, next day the temperature was 102·2°, pulse 80, and on the following day was 101·8°, with a pulse of 78; the pulse was also of excellent quality. This is not a solitary experience, indeed a comparatively slow pulse has been present without exception in all my cases, nor in any case has there been evidence of dilatation of the heart, which is exceedingly common in cases of infection from Pfeiffer's bacillus. This diplococcus evidently does not to any extent produce a toxin with

Dr. Halford states that in his case the onset has been sudden; that has not been my experience. In not one case have I met with a really sudden onset. Most of the patients have felt seedy and had catarrhal symptoms for three to five days or even longer before taking to bed. Both the rise and fall of temperature have been far less sudden than in influenza, in which disease the temperature may attain to a great height in a few hours. The disease lasts much longer than is usual with influenza.

I have had five cases of basal pneumonia during the epidemic. In all rusty sputum was present, and in three the physical signs were absolutely identical with those produced by the pneumococcus. In the other two patches of suppressed breathing were present amongst the area of tubular breathing. In all these the temperature was of a remittent type, and fell gradually, differing altogether from the temperature found in pneumococcal infection. In each case the sputum was loaded with encapsuled diplococci, which decolourised by Gram's method. The cardiac depression often present in pneumococcal infection was singularly absent, and the physical signs took much longer to disappear. I have seen several cases of broncho-pneumonia, and also a number of cases of bronchitis of a curious type. The disease was of no great severity, but they lasted for an exceptionally long time, chonchi persisting for four weeks or more. This letter is already quite long enough, or I could point out other differences between the present pandemic and influenza, notably the absence of nervous and especially of mental sequelae.

Until somebody can point to a series of cases in which the influenza bacillus was present I shall continue to believe that the present pandemic is due to an encapsuled diplococcus decolourised by Gram's method, and that it is really not influenza at all.—I am, etc.,

ARTHUR S. VALLACK.

Bowral, Sept. 27th, 1907.

DELAYED CHLOROFORM POISONING.

(To the Editor of the Australasian Medical Gazette.)

Sir,—On page 403 of your August issue is the debate on Dr. Hinder's paper reported in the proceedings of the New South Wales Branch meeting on July 26th, Dr. W. Chisholm makes the remark, "or to that latest refuge of the unsuccessful surgeon—delayed chloroform poisoning."

On page 405 of the same issue Dr. A. N. McArthur, at the meeting of the Victorian Branch on August 7th, read a paper on "Delayed Chloroform Poisoning or Acidosis." I have read and re-read Dr. McArthur's notes, but I am still unconvinced that he has made out his case. An adherent tip of a long appendix is not sufficient to account for the albuminuria—the rigors and the general condition of the patient. It is not fair nor reasonable in this case to try and shift the cause of the death on to the anæsthetic. There is no mention of any microscopical examination of the kidneys. The worries and troubles of the practice of medicine and surgery in the present day are amply sufficient without unnecessarily raising a feeling of distrust in our patients and their friends by adding new terrors to the uses of those most helpful servants of surgery, viz., anæsthetics.

I am only writing this in the spirit of the fairest and friendliest criticism, and I feel pretty well certain from the accounts given that there was a strong possibility of a fatal issue without operation or without anæsthesia.—I am, etc.,

LEONARD W. BICKLE.

Medico-Ethical and Medico-Legal.

Alleged Conspiracy amongst Medical Men.

—An interesting case involving the rights of members of the medical profession was tried at the Civil Sittings of the Circuit Court in Kalgoorlie, W.A., before Mr. Justice Burnside, recently. Dr. Cameron, of Boulder, sued Drs. Irwin, Connolly, Sawell, and Bridgeford, also of the same town, for £2000 damages for alleged boycott. The plaintiff's case was that it is the practice of the managers of the mines at Boulder to make it a condition of employment that every workman employed on the mines shall pay the sum of 1s weekly for medical attendance. Any medical practitioner may, with the approval of the manager, have his name posted up at a mine, and any workman can enter his name up on the "list" of any medical practitioner whom he may select out of those so posted. The 1s per week above mentioned is deducted from the workmen's wages, and paid to the medical man on whose "list" his name appears, and he is then entitled to attendance by the particular medical practitioner without further payment. The defendants, plaintiff alleged, in or about January, 1906, unlawfully and maliciously conspired and combined together for the purpose of injuring him in his profession and to prevent persons from employing him. In pursuance of the said alleged conspiracy and combination, the defendants entered into an agreement between themselves that they would not meet the plaintiff in consultation, or give chloroform for him, or attend his patients in the event of his absence, and would treat in the same manner any other medical practitioner who met plaintiff in consultation. The defendants permitted and intended that the said arrangement should be made known, and in fact the same was known, and the defendants caused the same to be known to all the medical practitioners practising at the Boulder, and amongst the officials and workmen employed at the mines at or near the Boulder, and amongst the general public resident in the district. The defendants further wrote a letter to the Chamber of Mines at Kalgoorlie, requesting that plaintiff's lists should be removed from the mines, on the ground that his patients could not obtain admission to any of the hospitals at the Boulder, and that the other doctors practising there would not consult with him or attend his patients in case of his absence. The defendants procured the signatures of W. Charles Gray and John Arthur Bisset, medical practitioners of Boulder, to the said letter, they having signed it unwillingly, and under pressure through fear of the defendants' combination. In further pursuance of the said conspiracy and combination, the defendants Irwin and Connolly attended a meeting of the Chamber of Mines, and the defendant Irwin, acting on behalf of all the defendants, stated that neither he nor the other defendants, nor any doctor practising at Boulder, would meet plaintiff in consultation, or give chloroform for him, or attend his patients in case of his absence, or assist him in any way. By reason of the premises, plaintiff suffered great loss, and persons who would otherwise have done so, have been prevented from employing him. In his particulars of special damage, plaintiff stated that for some weeks he was not allowed to have a "list" at the Lake View Consols and the Perseverance mines, and lost the profit he would have made had he been allowed to have such "list." Plaintiff proceeded to give specific cases of persons who were desirous of going on his "list" and securing his attendance during illness, but who did not do so owing to the alleged action of the defendants. The defence of Dr. Frank L. P. Sawell, which was the same as that of

all the other defendants, was a general denial of the allegations contained in the statement of claim. He denied that in or about January, 1906, or at any other time, he conspired or combined unlawfully or maliciously or at all with all or any of the other defendants for the purposes mentioned in the statement of claim. He stated that he and the other defendants were under no obligation to meet plaintiff in consultation or give chloroform for him, or to attend his patients, and if he did enter into the arrangement in regard to these matters as set out in the plaintiff's case he did not thereby infringe any legal right in the plaintiff. Prior to the month of January, 1906, the defendants and other medical practitioners, believing that certain medical practitioners practising at Kalgoorlie were abortionists, agreed that they would not meet in consultation or have anything to do with such abortionists, or with any medical practitioner who himself met in consultation or had any professional dealings with the said abortionists, or with any other medical practitioner who met in consultation or had professional dealings with any medical practitioner who the defendants for the reasons aforesaid had refused to meet. The defendants and other medical practitioners agreed as aforesaid, not with any desire to injure the plaintiff or any other person, but solely for the honour of their profession, and in order to discountenance the illegal practice of abortion. The plaintiff, with a full knowledge of these facts, met in consultation and otherwise had professional dealings with certain medical practitioners whom he knew the defendants for the reasons as stated had refused to meet, and the defendants thereupon refused to meet or have any dealings with him. If the defendants wrote to the Chamber of Mines, and if the defendants Irwin and Connolly attended a meeting of the Chamber of Mines, as alleged in the statement of claim (which is not admitted), they did so not in pursuance of any conspiracy or combination to injure the plaintiff, but for the purpose of informing that body as to the relations existing between the plaintiff and themselves, and with the lawful objects of protecting and promoting the interests of the defendants as medical practitioners. The jury found for plaintiff for £200 damages and costs.

A correspondent has forwarded to us a cutting from the Tasmanian *Daily Telegraph* containing a lengthy description of the new operating theatre at the Launceston Hospital, which was recently opened by his Excellency the Governor of Tasmania. Incidentally occasion is taken to eulogise the medical superintendent, Dr. Ramsay. It states that "Two factors must combine ere the standard of perfection is attained in the war against those 'ills that flesh is heir to'—human skill and complete apparatus. In Dr. Ramsay it has long since been universally recognised that the governing body of the Launceston General Hospital have had the first essential." "Dr. Ramsay will have greater opportunities for displaying the skill for which he is already renowned, and the public may now expect to hear of even more remarkable triumphs over disease than those which the surgeon-superintendent has already gained." Unfortunately medical men cannot always control the writings of the reporters of the lay press, and we regret that Dr. Ramsay has been made the victim of a most objectionable form of advertisement.

MEDICAL.—Applicants for positions as Medical Officers of Lodges are invited to communicate with the Hon. Secretary, B.M.A., 121 Bathurst-street, Sydney.

PUBLIC HEALTH.

New South Wales.

Health of the Metropolis.—Dr. W. G. Armstrong, Medical Officer of Health, reports for the month of September, 1907:—Deaths of residents of the metropolitan municipalities registered during September (exclusive of patients in Gladesville and Callan Park Hospitals for the Insane) numbered 482. This mortality is considerably below that of the two previous months, and is equal to an annual mortality rate of 10·54 per 1000 of the estimated mean population. When corrected by the inclusion of the metropolitan proportion of the deaths in all the Benevolent Asylums and Hospitals for the Insane throughout New South Wales, the death-rate becomes 11·42 per 1000, which is the more correct figure. Infectious diseases were again very fatal. Measles caused 17 deaths, whooping-cough 16, and influenza 8. The mortality from measles is increasing, while both whooping-cough and influenza appear to be on the decline, the mortality from those affections being considerably less than in recent previous months. Other infectious diseases were less fatal than usual, excepting cerebro-spinal meningitis, to which 5 deaths were attributed. Scarlet fever caused one death, diphtheria 1, typhoid fever 4, and puerperal fever 2. Diarrhoeal diseases were the cause of 18 deaths, all of which were assigned to enteritis. This mortality is slightly above the average for September. Phthisis was less fatal than usual. It caused 36 deaths, while the previous average for September was 41. Respiratory diseases led to a mortality of 63, of which 41 deaths were attributed to pneumonia, and 22 to bronchitis. Cancer, with 40 deaths, Bright's disease with 32, and diseases of the heart and blood vessels with 71, were all more fatal than usual. Deaths of infants numbered 90, which is equal to an infantile mortality rate of 75 per 1000 births. It is about equal to the average for the month of September. The chief causes of infantile mortality were—whooping-cough 10 deaths, prematurity 26, developmental diseases 16, respiratory diseases 10, enteritis 11. Of the notifiable infectious diseases, 176 attacks were notified; 83 were caused by scarlet fever, 60 by diphtheria, and 33 by typhoid fever. Within the city of Sydney 3 cases of pulmonary consumption were notified under the City Council's by-laws. Seven dwellings were disinfected after deaths from phthisis.

Infectious Disease.—Scarlet fever still continues very prevalent, and diphtheria cases are

numerous. During the fortnight ended September 9th, the number of typhoid cases reported to the Board of Health for the whole of the State was only 14. For the same period 113 cases of scarlet fever were reported, with two deaths. Fifty-five cases (one death) belonged to the metropolitan districts, 30 cases to the Hunter River districts, and 38 cases (one death) to the remainder of the State. Nine cases came from the city proper, 7 from Carrington, 10 from Newcastle, and 11 from Narrandera. Of 50 cases of diphtheria, with the rather high death-rate of nine for the fortnight, 30 (four deaths) came from the metropolitan districts (seven from Leichhardt), three from the Hunter River districts, and 24 (five deaths) from the remainder of the State.

Darling Harbour Sea Wall.—The members of the Board of Health paid a visit of inspection recently to Darling Harbour, with the object of seeing what had been done in the way of making the waterfront ratproof. Dr. Tidswell, acting president, stated subsequently that the members were much pleased to see that the sea wall was being carried to completion, and the only regret they felt was that the work had not been finished months ago. The completed part of the wall was regarded as entirely satisfactory, and the members were gratified to learn that the whole of the unfinished portion is either in hand or has been authorised, and will be completed within a few months.

The Sydney Water Supply.—Dr. Stokes, Medical Officer for the Board of Water Supply and Sewerage, reports as follows:—

A.—METROPOLITAN WATER SUPPLY.

1. Chemical analysis of sample from a tap in the city, September, 1907:—

Colour	25° Brown.
Clearness	Marked.
Odour	Nil.
Suspended matter	Very slight.
Total solids	7.8000
Chlorine	3.1000
Free ammonia .. .. .	.0000
Albuminoid ammonia .. .. .	.0118
Nitrogen as nitrites .. .. .	.0000
Nitrogen as nitrates .. .. .	.0069
Oxygen absorbed in 4 hours .. .. .	.0607
Permanent hardness	1.8
Total	2.8

NOTE.—Parts by weight per 100,000.

B.—METROPOLITAN SEWERAGE WORKS.

Results obtained at Septic Tank Installations at the North Sydney Outfalls during September, 1907:—

Final Effluents from—	Turbidity.	Odour.	Parts per 100,000.								Per cent. Purification.		Incubator Test. Seven days at 37° C
			Suspended Solids.	Chlorine.	Free Ammonia.	Albuminoid Ammonia.	Nitrogen as		Oxygen Ab- sorbed in		Albuminoid Ammonia.	Oxygen ab- sorbed in Four hours.	
							Nitrites.	Nitrates.	Three Minutes.	Four Hours.			
Chatswood ..	.. M'k'd	Foul	2·00	11·5	4·822	·410	·041	·290	—	1·268	97·3	86·3	Decomposed
Folly Point..	.. V. f't	Nil	·20	10·2	2·60	·075	·212	·580	—	·453	96·5	91·2	No decomposition
Balmoral ..	.. Slight	Nil	·50	15·5	1·135	·145	·407	1·767	—	·596	92·7	86·0	„ „

Food Adulteration.—At the last meeting of the Mosman Council the Mayor presented a minute dealing with the question of inspection of adulterated food, and the strictures passed upon local authorities by Dr. Armstrong (City Health Officer). He referred to the inadequacy of local inspection, which of necessity was spasmodic and perfunctory. The inspection of food should be made at the factories. Meat was inspected at the abattoirs, and all food and drink should be examined at the place where it was purchased by the retailer. Food and drink inspection should be thorough and systematic, including breweries, wine cellars, and cordial factories, as it was absurd to prosecute a retailer for selling what he purchased as a genuine article. At the North Sydney Council meeting it was resolved that the remarks of Dr. Armstrong regarding the apathy of the Council, demanded the taking of immediate action by the sanitary officers to check the condition of affairs so strongly commented on by the Health Officer.

Victoria.

The Spread of Infectious Diseases.—At a recent meeting of the Board of Health a report from Dr. Robertson was read in reference to the facilities offered by the out-patients' department of the Children's Hospital for the spread of diseases of an infectious character. Since then the matter has been under the consideration of the committee of management of the institution and the honorary medical staff. A letter has been forwarded to the Board of Health pointing out that nothing short of a careful medical examination of each child as it entered the door of the out-patients' department would prevent the risk. That was not possible, and, even if it were, every case of catarrh and measles during epidemics of whooping-cough and measles would have to be excluded to ensure safety. During an epidemic of diphtheria it would be necessary not only to have a portion of the growth taken from the throat of each child, but to have a negative result regarding it from the bacteriological department, before the child could be admitted. Such facts showed the impossibility of entirely doing away with the risk of infection in the circumstances, but the committee was doing all that could reasonably be expected to prevent the spread of infection.

Diphtheria.—The infectious diseases return laid before the Board of Health last month indicated a decline in diphtheria, the number of cases reported for the fortnight ended 7th inst. throughout the State being 71, with one death, as against the average for the previous four years of 57 cases, with three deaths. For the metropolitan area there were 49 cases, with no deaths, the average being 28 cases, with one death. Though the record is still above the normal, Dr. Norris states that the trend was distinctly downward.

Typhoid at Kew Asylum.—Dr. E. M. Inglis, health officer of Kew, who was instructed by the local council to make a special inquiry into the typhoid outbreak in the Kew Asylum, has forwarded a report giving the result of his investigations. The report has been forwarded by the Kew council to the Board of Public Health. Dr. Inglis considers the most likely cause of the continuance of the typhoid fever to be the rule or custom in the asylum for patients to use the dormitories as eating rooms. In the mentally afflicted the first symptoms of typhoid would probably pass unnoticed and without complaint. The disease could

thus reach the diarrhoea stage without it being diagnosed. As the bed linen was changed in the eating room (the dormitories, as previously stated, being used for the patients' meal rooms), then of course the germs might be disseminated about the rooms. Under such circumstances typhoid having once made a start it was difficult to say when it would stop. If all cases were recognised in the initial stage and isolated, the outbreak would probably soon cease; but with the insane, as mentioned previously, many such cases would pass unnoticed. The outbreak was not from a common source, such as the milk supply, but was more likely due to infection from patient to patient. With reference to faulty underground drainage, Dr. Inglis considers it necessary that the hospital should be connected with the metropolitan sewerage system. Two gullies ran through the farm, down which sewage freely flowed all day, and found its way into the Yarra. The smell from these gullies was sewage laden, and male patients daily worked in the immediate vicinity. The open brick drains adjacent to the building were kept in a satisfactory state. The medical superintendent had consulted with the Board of Health, and was now awaiting a report from that body.

Tasmania.

Board of Health.—At the last meeting of the Board of Health the health committee reported that four of the suburban local authorities had decided not to join with the Hobart local authority in the erection of the proposed Infectious Diseases Hospital. The committee recommended that plans be at once prepared for a hospital to serve the city and such suburban boards as have agreed to co-operate, and that, subject to the approval of the Chief Health Officer, the erection of the hospital be proceeded with as early as possible. The report was adopted. The City Health Officer (Dr. Gregory Sprott) reported for the month of August:—"I have the honour to report that during the month there were 51 deaths in the registration district of Hobart, but two of these were of persons not usually resident in the district. Of the above, in the city proper there were 27 deaths, viz., 19 males and 8 females, giving a death-rate of 13.14 per 1000. The principal causes of death were:—Influenza, 1; pneumonia, 2; cancer, 1; premature birth, 2; heart disease, 3; bronchitis, 2; diseases of stomach, 4; senilis, 5; and the remainder were of a general character. Ages at death:—7 were under 1 year of age, 8 between 5 and 65 years, and 12 were over 65 years of age. The total number of births registered in the district was 65, viz., 33 males and 32 females; in the city proper, 47, viz., 25 males and 22 females."

South Australia.

Health of Adelaide.—The officer of health reported that during the fortnight ended September 28th 4 cases of diphtheria, 2 of scarlet fever, 1 of erysipelas, 64 of measles and 9 of pulmonary tuberculosis were notified. Of the four cases of diphtheria two were imported from the suburbs for hospital treatment. The remaining two cases were isolated at home. Both cases of scarlet fever were imported from the country for treatment. The case of erysipelas was isolated at home. All the cases of measles are isolated at home. Of the nine cases of pulmonary tuberculosis seven were imported for hospital treatment. Of the remaining two cases, one was removed

to hospital and one is at home under the city trained nurse's supervision. The city trained nurse has made 130 visits to 110 cases during the fortnight, and finally disinfected seven houses. Of the 110 cases under her care, one was suffering from erysipelas, two were suffering from diphtheria, two from scarlet fever, 64 from measles, and 41 from pulmonary tuberculosis. The committee also recommend the board to seek power in the bill to amend the Health Act to deal with persons who are regarded as unfit to handle milk owing to unclean habits.

Queensland.

Bubonic Plague.—Dr. Burnett Ham, Commissioner of Public Health, reports for the four weeks ending October 5th, 1907:—*Brisbane.*—Case No. 40.—A steward, aged 47, on board the s.s. "Mareeba," a cargo steamer trading between Sydney and Rockhampton, was discovered to be suffering from plague on the arrival of the vessel at Brisbane on the 16th September. The patient was first taken ill on the 12th, when the vessel was at Newcastle, bound for Sydney. He was seen in Sydney by a medical man, but was not considered to be suffering from plague. The ship arrived at Brisbane on the 16th September, and immediately after the case was discovered, was quarantined in midstream. The patient was removed to Colmslie Hospital on the 17th September, and died on the 21st, and the work of fumigating and disinfecting the vessel and cargo was commenced. A thorough search for rats was made, all the linings and ceilings were pulled down, and a number of rats in various stages of decomposition were found. The food lockers were dealt with in a similar manner, and several dead rats were found among the provisions. The hold and cargo were fumigated with sulphur, the limber boards being taken up and the bilges thoroughly disinfected with "cyllin." This vessel is always fumigated at Rockhampton, the terminal port. During the cleansing and disinfecting work on the "Mareeba" 68 rats and 10 mice were found; 42 of the rats (probably plague-infected) were too decomposed for examination, and of the remaining 26 rats and 10 mice none were found infected. All the rats found on the vessel were of the species *Mus. Alexandrinus Rufus*. All circumstances point to the ship as the source of infection. Rats destroyed 1201, mice 159; rats examined 949, mice 149; rats infected 6. *Cairns.*—A second case of plague was reported on the 9th September. The patient, a girl, 14 years of age, lived in same area as the first patient. A number of dead rats have been found in this area, and some were found to be infected. Three wharves were quarantined on account of plague rats being found, and the town is being thoroughly cleansed. The case reported above is rapidly recovering. A third case was reported on 20th September—a schoolboy, aged 13 years, residing in a boarding-house in the vicinity of the wharves, died on 21st September. On 23rd a fourth case was discovered—a male Cingalee being the victim. He was found dead in his tent at Mulgrave, near Cairns, where four days prior to his demise he had been camping in the vicinity of the wharves. The autopsy disclosed pestis. On 27th September a wharfinger was reported to be suffering from plague; all necessary precautions have been taken in the matter. On September 28th a boy 2 years old was reported to be suffering from plague. On September 30th a married woman and a boy were reported to be in a moribund condition from plague; the boy died on the following day, i.e.,

October 1st; post-mortem examination revealed the presence of plague. On the 3rd instant a wharf labourer was reported to be suffering from plague, but has since recovered. Total number of cases reported to date since outbreak at Cairns amounts to 9, 4 of which have proved fatal. Total number of rats destroyed during the period, 234; found to be plague-infected, 10.

Leprosy in New South Wales

THE annual report of the President of the Board of Health on leprosy in New South Wales, for the year 1906, has just been presented to Parliament. It states that during the year nine persons were reported to the Board under the Public Health Act, 1902, Part III, as being suspected lepers, and of these six were ultimately admitted to the lazarette on warrants issued by the Board after careful inquiry. A patient reported at the close of 1905, but not then legally certified, was also received, making a total of seven admissions for the year. One patient, a native of Tanna, New Hebrides, died during the year. Four patients were discharged. Three Chinese were returned to their own country; the fourth, an Englishman, admitted during 1904, was considered to have recovered, and was discharged by order of the Board. Thus the number remaining in the lazaret on December 31st, 1906, was 20 persons; 10 were whites, 6 of whom were natives of New South Wales of European descent, 1 a native of Fiji of European descent, 1 a native of England, 1 a native of Ireland, and 1 a native of the United States of America. Of the coloured lepers, 1 was a Javanese, and 9 natives of islands comprised in the Pacific groups. The total number of persons admitted since 1883, when patients first began to be received (though the notification of leprosy was first made compulsory, and the detention of lepers provided for by law only towards the end of 1890), is 110. The average annual number of patients resident was 19.5, and the average expenditure £79 14s 10d per inmate per annum.

A CASE OF LEPRA TUBEROSA IN WHICH RECOVERY OCCURRED.

The following case, reported by Dr. Ashburton Thompson, is so striking that we publish the account of it in full.

The clinical notes of this case are classified below under regions of the body, and the state of each region at each of three successive surveys is given under the letters A, B, and C for easier comparison. These surveys were made at the following dates:—A on June 23rd, 1904, B on August 28th, 1905, and C on September 1st, 1906; so that the second and third were each held at intervals of about a year.

History.—Æt. 65, a soldier. Was born in England, of English parents, about 1839; enlisted in 1860, and was stationed in Ceylon; in 1863 was ordered with his regiment to New Zealand, and in 1866 to Sydney; he then took his discharge, and joined the New South Wales forces, with which he served continuously till 1902, when he was retired. Throughout this term of about 35 years he lived at Sydney, except four years during which he was stationed at Bathurst (N.S.W.). Is married; has nine children, of whom the youngest is 19 years old. About 1874 had pleurisy, and somewhere about the same time a venereal sore; with those exceptions has always had good health.

History of illness.—After his discharge he visited England, whence he returned during April, 1904. He said that he continued in perfectly good health until

some date during the voyage to Australia, when his steamer was within the tropics. He then noticed two red lumps on his forehead, which he identified with tuberosities present on his admission at the inner end of each eyebrow. He said that they appeared suddenly and painlessly; they were not present when he turned in one night, and were noticed the next morning. Since then other lumps had appeared on his face, and spots on his body and limbs. During the preceding month or so he had noticed swellings of his hands. He denied occurrence at any time of malaise, febrile attacks, nose-bleed, etc., and of all other signs of ill-health. He had no suspicion of the nature of his illness.

State on admission, and subsequent course.—Hair.—A. June 23rd, 1904. Of scalp, fallen in accordance with his age; of eyebrows, thin; elsewhere, normal. B. August 28th, 1905. The eyebrows have almost completely fallen; elsewhere the hair is normal. C. September 1st, 1906. The eyebrows have reappeared. On the right side, the growth, though moderate, is in the patient's opinion what it was before illness; individual hairs are stout, some are long, and as a whole, this eyebrow may be pronounced normal. On the left side, the growth has not become quite so completely restored, but is not evidently abnormal.

Head and Neck.—A. The scalp over the vertex is bright red (congested), but smooth, and in all other respects normal. The eyebrows, malar eminences, *alæ nasi*, chin, and submental tissues are infiltrated. There are many scattered tuberosities, especially on the forehead and brows. The lobe of the left ear is infiltrated. B. There is nothing abnormal about the head and neck; especially is there no infiltration anywhere. The sites of tuberosities formerly present on the forehead are marked by well defined, but faint, red stains, which would hardly escape observation, but which would not detain attention. C. No signs.

Nose.—A. The nose is partly obstructed. B. No note. C. Always free.

Trunk.—A. Many maculæ on the posterior aspect of the trunk, many of which are greatly thickened; they are generally distributed, circular or oval in outline, and vary from a sixpence to a florin in size; they have slightly desquamating margins, are reddish in colour, and some of them are paler at the centre; several of these pale centres, but not all, are anæsthetic. B. The front of the trunk exhibits only a little pityriasis about the sternum, where there is a thick growth of hair. On the back are about a dozen oval maculæ; they vary in diameter between 1 and 2 inches; they have well-defined but not sharp edges; their colour, which is uniform, and faintly red, may be likened to a slight blush. There is neither thickening nor desquamation. C. No signs. There is no pityriasis.

Arms.—A. Many maculæ. B. No maculæ. C. No maculæ.

Forearms and Hands.—A. Both hands are cyanosed; the fingers are swollen, and tactile sensibility is much diminished. There are many scattered tuberosities. B. The skin of both forearms is reddened, on the left side more than on the right; the cuticle is smooth and rather shiny. In both hands the same signs exist, and are more marked; they are more pronounced in the right hand. There is no swelling, and no wasting of the intrinsic muscles of the hands. No tuberosities can be found on or in the forearms. C. The skin of the outer and posterior aspects of the *right* forearm is about normal; the skin over the elbow-tip is voluminous, but has normal texture and colour; that of the back of the hand is of a rather bright red, but this could hardly be pronounced abnormal. The skin of

the *left* forearm and hand in the corresponding regions is red and slightly roughened; it does not visibly desquamate. The skin over the elbow-tip is voluminous and carries extensive red stains, but seems to be in process of reversion to the normal.

Ulnar Nerves.—A. Both are hard and comparatively insensitive. Both are freely movable; strong pressure causes no evident discomfort, but sensation is correctly referred. If very sharply rolled, momentary contraction of some muscles of the hand is caused. B. Both ulnar nerves are round, smooth, and rather hard at the notch; they are quite fully sensitive and are perhaps even a little tender. On pressure sensation is correctly referred on both sides. C. On the *right* side the nerve is normal in consistency and size at the notch; yet it can be traced upwards for three or four inches, though not easily. It is quite normally sensitive, and on pressure sensation is correctly referred. On the *left* side no abnormality of this nerve can be detected; it cannot be followed above the notch.

Buttocks.—A. No note. B. No note. C. On the right side is a faintly red, oval macula, about two inches in horizontal diameter by one inch broad; the skin is perhaps thinned, but the cuticle is not desquamating. On the left side is a similar spot of the size of a sixpence, and circular.

Thighs.—A. Some maculæ. B. There are two or three reddened spots about the right kneecap which have no definite character. No signs.

Legs and Feet.—A. No note. B. The lower extremities are perfectly normal. C. No external signs.

Peroneal Nerves.—A. No note. B. Perfectly normal. C. Both nerves are decidedly larger than normal, and the right nerve is larger than the left; these changes are slight, but definite. Both are normally sensitive, and on pressure sensation is correctly referred.

Sensation.—A. In removing clothes the fingers worked clumsily, and the patient says they are numb. B. Maculæ on the back. A very light touch (such as should tickle) is not felt; the slightest tap is felt, and the place located by the patient with near accuracy. He says the right finger and thumb are numb; however, he uses an ordinary sewing-needle without difficulty, though not with his former expertness. C. The skin of the back was tested with a needle which was applied at points about an inch apart, in perpendicular lines which extended from the shoulders to the loins at intervals of about 2 inches. If the cuticle were penetrated, though without drawing blood (this can often be felt by the observer, but not seen), the patient said the sensation was natural, but he did not flinch; yet here and there at about half-a-dozen spots which were in no way visibly distinguished, he did flinch. Perhaps, therefore, there is some general blunting of sensation, but the conditions of the experiment were uncertain. Tactile sensibility in the fingers was tested by covering with a cloth five shillings of which four were good impressions, while the fifth was nearly smooth; with either hand he selected the smooth coin in about the time taken to do so by healthy persons. Sensation in the skin of the feet and ankles appeared to be normal.

B. Lymph.—A. Abundant in lymph from three tuberosities on the forehead; present in lymph from merely infiltrated parts of the eyebrows. B. No note. C. Not found in films made with lymph from the right eyebrow, and from the back of the left hand; not found in the swabbings from the nasal mucous membrane.

Sweat Function.—A. No note. B. No note. C. (Observed by the senior resident medical officer, Dr.

D. Wallace). September 11th. 11 a.m., T. of room; 22.2 C.; under tongue, 37.7 C. (shortly after a hot bath); pulse 112. One-third of a grain of muriate of pilocarpin was injected under the skin of the right forearm. 11.10 a.m.—Scalp moist; sweating freely on face, except malar eminences; anterior aspect of external ears is dry. Trunk; The back is only moist; the anterior surface of the trunk, the arms, forearms, hands, fingers, and the whole of the lower extremities are all sweating freely (except the horny soles of the feet). 11.20 a.m.—The malar eminences are very slightly moist. 11.25 a.m.—The back is now sweating visibly (beads), but the reaction is less marked about the scapular region; the gluteal surfaces are very moist; the transversely elongated macula is slightly less moist than the neighbouring skin; a red spot not visible before made its appearance near the middle line, and sweated as freely as the rest of the gluteal region. 11.30 a.m.—Reaction waning; temperature of room, 25.2 C.; under tongue, 37.2 C.; pulse 112.

Summary.—The only parts which remained absolutely dry were the anterior surfaces of the external ears. Sweating was delayed, and slight over the malar eminences, and the gluteal regions became very moist only.

Treatment.—July 4, 1904.—Admitted. July 7, 1904.—Gurjun oil. Began with 20 minims a day; in the course of 13 days increased to 80 minims a day; by December 12th was taking 270 minims a day. This course was occasionally interrupted owing to disturbances of the digestive system. December 13, 1904.—Chaulmoogra oil. He began by taking 45 minims a day, divided into three doses; this was gradually increased, until by September 23, 1905, he was taking 270 minims a day, which on September 24th, 1905, he increased to 315 minims a day. This he took for a week, but on account of general pains and malaise was compelled to reduce it again; so that on September 30, 1905, he began to take 150 minims a day. This he gradually increased to 195 minims. December 4, 1905.—He began to take a pill containing 1.60th of a grain of strychnine three times a day; the dose was rapidly increased till it reached 1.30th of a grain taken thrice daily, which he continued to the end of his stay. At the same time the chaulmoogra oil was again increased until it amounted to 270 minims a day. August 1, 1906.—He reduced the chaulmoogra oil to 195 minims a day, and continued to take this quantity to the end of his stay.

Note.—As soon as I came to consider the question of releasing this patient, and to decide on the recommendation I should be justified in making to the Board of Health in view of the law of November 26th, 1890, which directs the segregation of lepers under administration of the Board, I submitted him to Danielssen's test. He took 10 grains of iodide of potassium three times a day during 15 days. No alteration in his condition was produced. Ultimately he was released on September 20th, 1906.

The patient was an intelligent man, of considerable force of character. He devoted himself to his treatment, which included frequent hot baths. The chaulmoogra oil was received from Horner & Sons, of London; it was referred to the analytical laboratory of the Department of Public Health, and was reported to have responded to the recognised tests, and to be genuine. The doses were measured with considerable accuracy; they were administered in gelatine capsules, which were ascertained to hold about 15 minims each. I have found it necessary to allow patients themselves to regulate the quantity

taken. If it be too great, they complain of pains about the body, probably muscular, which are especially felt in the loins and thighs, of some breathlessness, with consequent difficulty in walking either fast or up hill, and of general malaise. The quantity which can be tolerated without discomfort varies in different individuals.

Degree in which complete recovery was approached.—For all practical purposes, that is to say, as regards possible dissemination of infection, this patient had recovered, and no longer presented any such evidence of his disease as would warrant his further detention under the law. But recovery from tuberculous leprosy is so uncommon, and its relation to treatment has so much interest and general importance, that his condition must be discussed with other than legal requirements in view. It is here pointed out, therefore, that at the date of his discharge his right ulnar nerve was still so far enlarged as to be just traceable for three or four inches above the elbow-joint; both peroneal nerves were enlarged, and they were of unequal size; the skin of the left elbow and of the posterior aspect of the left forearm and hand were hardly normal in appearance, though possibly only slightly congested; he exhibited the remains of a macula (then devoid of characteristics) on the right buttock; and the sweat function had not become completely restored over the malar eminences. It may be hoped that convalescence will progress until complete recovery has been attained; but as yet it cannot even be said that the disease has entered on a stage of assured quiescence. The evidence on this last point consisted in invasion of the peroneal nerves for the first time during the last year. It is impossible to convey accurately in words the impression which direct clinical examination affords, and the remarks last made above seem to me likely to excite an erroneous idea of this patient's state at the time of his release. I therefore venture to mention the following opinion. Were he now to present himself to a physician of experience with leprosy, but on account of some other disease, I do not think any suspicion that leprosy in any form was or had been present would be aroused in the physician's mind.

Could diagnosis of leprosy now be established?—But were he presented for a decision on the question whether recovery from leprosy had really taken place, then, I think, such a physician must give a reply in the negative, and could even establish his opinion firmly. He could do so, however, only if he were in the habit of examining such cases in a way, and by the following method, which, to judge from the innumerable clinical accounts on record, are not generally employed. (a) Systematic examination of the peripheral nerve-trunks as a matter of routine. In the accounts referred to these are most often omitted from mention; and if their condition be noted, then it is done only by way of adding one additional item to the complex of signs and symptoms from which the diagnosis must be deduced. But I now submit that such alterations as have been mentioned above (in this case of the peroneal nerves) suffice by themselves to suggest a diagnosis of lepra when they are exhibited in a person who, otherwise, is in apparent good health. In declared cases such alterations are always to be found if they are looked for; also, they occur very early, and I doubt whether they may not constitute the earliest sign of infection. (b) The subcutaneous injection of a salt of pilocarpin. I think that appearance under the influence of pilocarpin of more or less dry areas of skin, intermingled with areas over which sweating occurs in normal degree, always affords strong grounds for sus-

pecting leprosy; while dryness of wrists and hands and of ankles and feet, when it occurs under that influence, is decisive.

Relation between the state of recovery attained and the treatment.—The date at which the infection was taken cannot be fixed. The possibility of its having been received in New South Wales must be admitted, because indigenous cases have now been recorded there, many of which have occurred under my own observation. But the patient's previous residences in Ceylon and in New Zealand cannot be overlooked, although a very long latent period would be implied if it were assumed that he had become infected in either of those countries. Nor, in my opinion, can the date at which illness began be surmised. The long period of latency which is generally conceded to leprosy, and which, I believe, very frequently obtains, together with the well-known frustrate forms of the disease, point to insidious beginnings of the active stage. I think it probable in this case that the infection may have long remained in a state of subactivity, during which it either caused no recognisable symptoms, or else slight symptoms which accrued so slowly as to have been obscured in the patient's mind by custom, so that he failed to become aware that his sensations were in any degree abnormal. But the date at which the active stage began was fixed with certainty within a week or two; and the rapidity with which the details of the clinical picture were filled in was only less remarkable than that with which they faded. By these features a temporary and unexplained loss of resistance seems to be indicated, together with its speedy restoration; or, if the sudden appearance of the disease process in full activity be supposed to have been due to an accidental release of the bacillus from the nidus in which it had been subtly maintaining itself, then in the rapid recovery may be perceived evidence of persistence through all of a high degree of resistance. In my own experience gurgun oil is practically valueless in the treatment of leprosy. If this be a correct view, then the great improvement recognised at the second survey had occurred after only eight months' treatment with chaulmoogra oil. All the tuberosities, both cutaneous and subcutaneous, had then disappeared, the maculae had in part disappeared and in other part were greatly faded, the ulnar nerves had resumed their sensitiveness, the former numbness of the digits had become much less. Besides taking this medicine, the patient led a regular life and enjoyed a full diet; but his circumstances before admission were such that the value of these advantages was not great to him. Now, although chaulmoogra oil always seems to do some good, it has not in my experience done in any other case as much good as was observed even at the second survey in this instance. But, on the other hand, no other patient has pushed it to the same extent; or, if that be not quite exact, at all events no other patient has shown the same obstinate determination to recover, if by the means at his disposal recovery might be compassed. As regards his additional treatment by strychnine, he did not begin it until ten months before his discharge; and although I am unaware of any ground for ascribing specific properties to this drug, it should be noted that it was during this term and two earlier months (namely, after August 28th, 1905) that the peroneal nerves were invaded for the first time. Whatever the value of chaulmoogra oil as a remedy for lepra may be, on the whole I feel obliged to express the opinion that it would not have produced the favourable results recorded in this case unless the patient had possessed an unusual inherent power of combating the infection.

HOSPITAL INTELLIGENCE.

Melbourne Hospital.—The magnificent benefaction of £100,000 made by the trustees of the Edward Wilson estate to the Melbourne Hospital came before the committee of management at its last meeting in a formal letter to the chairman, Mr. John Grice, from the trustees. The letter reads:—"To John Grice, Esq., President, Melbourne Hospital. My Dear Sir,—Mr. Edward Wilson at his death in 1878 bequeathed to trustees (subject to provision for certain legacies and annuities) his whole estate, to be devoted, in accordance with his instructions, to alleviating the sufferings and promoting the welfare of the sick and needy through the medium of the charitable institutions of Victoria, with a caution against encouraging in any way a spirit of pauperism. During the long period which has elapsed since his death his trustees have sought faithfully to fulfil his wishes by distributing from time to time sums of money for the support and development of such institutions as came within the terms of his will, and his present representatives have great satisfaction in now being able, through the gradual accumulations of many years, to place at the disposal of the committee of the Melbourne Hospital, after careful consultations with certain representatives of that body, such a sum of money as will materially assist the reconstruction of the edifice, a work the national importance of which Mr. Wilson would have fully appreciated, and which will be a lasting memorial of him in the State to which he has been such a generous benefactor. They therefore propose—To place at once in the hands of the six trustees (three from the Wilson trustees and three from the hospital committee) out of the accumulation of the Edward Wilson estate since the date of his death, interest bearing debenture bonds for £100,000 towards the cost of rebuilding the present Melbourne Hospital, or of erecting a new edifice on the following conditions: 1. That the hospital be rebuilt on the present site unless within six months a more suitable site be acquired and approved by the Edward Wilson trustees, accompanied by the estimated cost of construction and maintenance, with the object of guarding against building in excess of the maintenance power. 2. That the erection or rebuilding shall be commenced within 18 months from the present date, and completed within five years, unless the Edward Wilson trustees agree to an extension of this period. 3. That the interest on the debentures set apart as above is to accrue to the settled fund from its commencement, and to that extent supplement it, being available only for the purpose of building, and not for maintenance. 4. That payments out of the fund shall be made only on the certificate of the architect of the building, and that the trustees of the debenture fund shall have power to suggest to the hospital committee the appointment of an architect to carry out the work. 5. That a trust deed be drawn up embodying these conditions, and such working details as may be considered advisable." The Chairman said that for many years the committee had had the question of reconstructing the hospital before it. The position of the committee had come under the notice of the Edward Wilson trustees, and those gentlemen had conceived the idea of giving such a sum of money that would materially help to put up a new building, or enable reconstruction on modern lines on the present site. The amount of £100,000 offered was really more, for in interest bearing debentures it would make the gift considerably more; as it would take several years to carry out the project. The following motion was carried unanimously:—"That the grateful thanks of

the committee be conveyed to the trustees of the Edward Wilson fund for their magnificent gift to the Melbourne Hospital." It was resolved that a sub-committee should report on the question of site as early as possible.

Warrnambool Hospital, Victoria.—The system under which resident medical officers are appointed to the Warrnambool Hospital has been under consideration by the committee of the institution as the result of the recent resignation of Dr. White to accept an appointment at the Melbourne Hospital, after he had been only a few weeks in charge of the local hospital. Mr. W. Ardlie pointed out that applications had been invited, and Dr. White had applied and been appointed. Although he was appointed to the Warrnambool Hospital for 12 months, it would be cruelty to enforce him to remain when he had the chance of greatly improving his position. If such terms were insisted upon they would not get graduates to come to the local hospital. The trouble was due to the defective system. He thought a permanent resident officer should be appointed, not a new one every 12 months. Only one of their resident medical officers had remained for the full term of his appointment. Dr. Holmes suggested that candidates for the position be asked in future to promise to stay for the full term of 12 months. The appointment of Dr. Alice McLean as *locum tenens* was confirmed. The admission of consumptives to the Warrnambool Hospital is forbidden by the rules of the institution, but one of the medical staff (Dr. Holmes) has pointed out to the committee that it is impossible to refuse admission to consumptive patients suffering from acute forms of the disease, such as hæmorrhage, or from injuries caused by accident. There was a danger of infection by having such patients in the institution, and he recommended that whenever practicable they be accommodated in tents. The matter has been referred to the medical staff for report.

Diamantina Hospital, Queensland.—The report on the Diamantina Hospital for Chronic Diseases for the year ended June 30th, prepared by the visiting medical officer (Dr. A. Jefferis Turner), states that the wards were kept fully occupied during the year. A new consumptive ward, to accommodate 16 patients, had been erected on the ground near the consumptive open-air shelters. An incinerator for surgical dressings and other refuse had been installed at a low cost, and was working very efficiently. The inmates on July 1st, 1906, numbered 39 males and 34 females; during the year 56 males and 28 females were admitted, 19 males and 16 females were discharged as cured or relieved, 1 male was sent to the reception house, 35 males and 8 females died, and 40 males and 38 females remained on June 30th, 1907. The average number of patients for the period was 74.5; the cost per head for the period was £42 13s 2d, and the cost per head per day was 2s 4d. The total cost of maintenance was £3401 12s 5d. The sum of £223 7s 3d was received from the inmates towards the cost of maintenance.

Hobart General Hospital.—At the monthly meeting of the Hobart General Hospital the visiting committee reported:—"Although the surgical and medical work of the hospital still continues very heavy, it is pleasing to be able to report that the general health of the nursing staff continues good. As members of the board are doubtless aware, the majority of the nurses, on the expiration of their period of training, leave for more lucrative employment. With the view of inducing nurses to remain on the staff for a longer period than at present, the committee has, after com-

munication with the chief hospitals in the other States, decided to recommend to the board a scheme which it is trusted will enable the desired result to be achieved. Dr. Wolfhagen said they were not in a position to give more than £55 a year after considerable service. They had lost, and were losing, two or three more valuable nurses, who had been of great assistance. When spoken to about going, they replied that the nurses outside seemed to be very happy, and earning two or three guineas a week, while in the hospital they worked very hard and only got £55 a year. As to the number of hours worked, it would be as well to ask for a return. The salary abstracts and accounts for the month of August, amounting in all to £732 18s 10d, were examined, found correct, and passed for payment. During the month 258 patients have been treated in the hospital. Of this number 136 were discharged, and 4 died, leaving in the institution on September 1st 71 males and 47 females. In the out-patients' department 158 new cases were treated; casualties, 26; total attendances, 804. The building committee submitted the following report in regard to the Children's Hospital:—"In accordance with the resolution of the board of management, the building committee has fully considered the matter of inviting competitive designs for the proposed hospital for children; also the desirability of acquiring possession of the land fronting on Campbell and Liverpool streets, and now report as under:—(1st) That it is recommended that competitive designs be invited from architects resident in Tasmania for a Children's Hospital to accommodate 24 beds, and on the lines indicated by the Chief Health Officer; the successful competitor to be entrusted with the preparation of the specifications, working contract drawings, and supervision of the building at the usual rate of commission, viz., 5 per cent.; the second successful competitor to receive a premium of £15, and the third a premium of £10, the three premiated designs to become the property of the board of management. (2nd) It is also recommended that the kind offer made by the Tasmanian Association of Architects to render assistance in framing the conditions of competition be accepted, as also the suggestion made that the judging of the designs be left to an expert committee, consisting of members of the medical staff, the Chief Health Officer, and an architectural assessor. The site of the proposed hospital has been approved by the Chief Health Officer, and on the 24th ultimo the Government intimated that Mr. Mathers would be given notice to quit the premises now in his occupation." The report was adopted, and on the motion of Dr. Spratt, seconded by Alderman Hoggins, a letter from the secretary of the Architects' Association as to the conditions was referred to the building committee, with power to act.

At a meeting of the building committee of the General Hospital (Hobart) board of management last week, the conditions of the competition among architects for the best design for a children's hospital were finally approved of, and will shortly be advertised. Architects are to be given until the end of January next to furnish designs. The secretary wishes to acknowledge, with thanks, the receipt of £10 from his Worship the Mayor (Mr. C. D. Haywood), being portion of the damages awarded to him in a recent libel suit, also the sum of 13s 1d from the money box of the Fern Tree Hotel. This fund has now reached £981.

SUBSCRIBER would be obliged for information as to any up-to-date work or literature upon "Migraine."

OBITUARY.

JOHN WALKER-SMITH, L. et L. Mid., R.C.P.
(Edin.) 1873, late of Glebe-road, Sydney.

We regret to record the death of Dr. Walker-Smith, who was for many years a well-known practitioner in the Glebe, which took place at his late residence, Mosman, on October 7th. He was born in Greenock, Scotland, and was educated in Glasgow. He entered on the study of medicine with a view to becoming a medical missionary, and obtained the qualification of the Edinburgh College of Physicians in 1873. He applied to the London Missionary Society, but for some reason his application fell through, and he was deeply disappointed at not being able to go to the East, as he had hoped, as a medical missionary. He practised his profession in Glasgow for some years, and then came to Australia. He first practised in Victoria, and for a short time was Medical Officer of Health at Ballan. He then came to Sydney and practised for nearly 25 years at the Glebe. He acquired a large practice, and was wonderfully keen and energetic in his work up to about two years ago. He then contracted what he thought was a bad cold—a thing he had never suffered from—but which proved to be the first symptom of pulmonary tuberculosis. At the same time he had other troubles to meet, and his health began to fail rather rapidly. He retired from practice, and after spending a short time in the country he went to live at Mosman. The end came quite suddenly from heart failure. Dr. Walker-Smith married twice, and is survived by his wife, three sons, and one daughter. One son is a dentist, and one is in the medical profession. His funeral took place at Gore Hill Cemetery on October 8th, his old friend, Rev. Dr. Clauston, officiating.

THOMAS WILLIAM GARDE, L.A.H. (Dub.),
1870; L.R.C.P. & S. (Edin.), 1871;
Toowoomba, Queensland.

We regret to record the death of Dr. T. W. Garde, an old and respected resident of Toowoomba, which took place on September 21st. Deceased, who had been in ailing health for some considerable time, was 60 years of age, and was a native of Cloyne, County Cork, Ireland. He was a resident of Toowoomba for the past 32 years, and for a number of years took an active part in the Toowoomba Turf Club, of which he was a vice-president until recently. He leaves a widow and two sons, Drs. Lee and H. J. Garde.

CECIL LACY DAWSON, L.R.C.P. (Lond.),
M.R.C.S. (Eng.), 1873.

Dr. Dawson, who has been practising in the Berry district, N.S.W., for upwards of 12 years, died on September 21st. He leaves a widow and three children.

Medical Matters in Parliament.

The Opium Trade.—In the House of Representatives on September 27th the Minister for Customs, in reply to Mr. Dugald Thomson (N.S.W.), said that an order had been issued indicating the quantities of opium deemed sufficient for the ordinary annual requirements of an average chemist's business, and the wholesale distributors, who were the holders of departmental licenses to import opium for medicinal purposes, had been informed that the department expected them to exercise discretion with regard to the supply of opium

to retailers, and to bring under notice any increase of demand which might seem questionable. Periodical inspection was made of the distributors' books, and explanation of the same asked as to any supplies apparently in excess of the legitimate requirements. If in any case it was proved that a licensed importer had disregarded reasonable precautions in the distribution of opium, the Government would not hesitate to cancel the license. The co-operation of the State Governments had already been sought. The Victorian Legislature had passed an Act dealing with the matter, and it was hoped that similar action would before long be taken by the other States.

Compulsory Vaccination in South Australia.—The Legislative Council last month passed a Bill dealing with compulsory vaccination. In 1901 an Act was agreed to providing that no parent or other person should be liable to a penalty if within six months of the birth of the child he made a declaration that he conscientiously believed that vaccination would be prejudicial to the health of the child, and within seven days thereafter delivered to the vaccination officer such declaration. That Act had a time limit of five years, and in 1906 it was continued until 1911, with the provision that the time in which the declaration should be made was extended to within 12 months of the birth. Since then it was found that a large number of parents who believed that compulsory vaccination had been entirely abolished had neglected to have their children treated, while others thought it was not even necessary that a declaration should be made. In consequence a large number of people have rendered themselves liable to a penalty, and this session both Houses have passed a bill, the principal clause of which states: "Notwithstanding anything contained in the Acts of No. 761 of 1901 and No. 908 of 1906, no parent or other person shall be liable to any penalty under section 21 of 'The Vaccination Act, 1882,' in respect of any child born before the passing of this Act if before the 31st day of December, 1907, he makes a declaration before a justice of the peace, in the form of the schedule to Act No. 761 of 1901, that he conscientiously believes that vaccination would be prejudicial to the health of the child in respect to which the declaration is made."

The New Norfolk Asylum, Tasmania.—In the House of Assembly in Hobart on September 12th Mr. Ogden moved the adjournment of the House to lay before it complaints which had been put before him of gross ill-treatment meted out to certain inmates at the New Norfolk Asylum. He read a lengthy letter from Charles Matthew Bird, who was described as a very excellent clerk, and who had also been engaged in mining on the West Coast. A lengthy discussion ensued, and the motion was negatived. Commenting upon this the *Tasmanian Mercury* says:—"If the statements made in the letter read in the House of Assembly yesterday by Mr. Ogden have in them even a small proportion of truth, a state of things exists in the New Norfolk Hospital for Insane which is perfectly scandalous. On the other hand we cannot readily believe that men will be found who could be guilty of such inhuman barbarity as the warders are charged with, nor that the Medical Superintendent would allow it to go on. Not one of the members who spoke had any doubt as to the competence and honesty of the Medical Superintendent. . . . The Premier very rightly pointed out that such charges should first be made to the Minister, and if he failed to take such action as would be satisfactory, the aid of Parliament

might be invoked If a proper investigation shows that the practices complained of exist, there would be every reason for stirring up public feeling. But until it is sure that they do exist, a decent silence would have been more becoming. We are ready to admit that an inquiry must be made. But we do think that the proper course would have been to make the inquiry first, and the fuss afterwards, if it seemed necessary." With these remarks we cordially agree, and sympathise with Dr. Macfarlane in the position he has been placed by the publication of statements which are obviously grossly exaggerated.

Country Hospitals in N. S. Wales.

THE second annual meeting of the Country Hospitals Conference Board was held in Sydney last month. Some 30 delegates from country hospitals met under the presidency of Mr. R. T. Keys, of Muswellbrook. Several matters of importance were discussed, and the following among other resolutions were affirmed:—

Real Estate Bequests.—"That the Government be approached and asked to approve of the granting of subsidy upon bequests of real estate or subsidising the net rental obtained therefrom."

Delirium Tremens.—"That in every case where delirium tremens patients are admitted to hospitals the police be required to provide adequate guardianship over such patients."

Friendly Society Allowances.—"That the Government be recommended to legislate so as to empower hospital committees to levy on the allowances of friendly societies to their sick members who may be patients at hospitals; also on the allowances from miners' accident funds."

Training Hospitals.—"That efforts be made to have country hospitals with an average daily attendance of eight patients recognised by the Australasian Trained Nurses' Association as training hospitals, provided that the said hospitals have the proper appointments for the treatment of medical and surgical cases, and provided that in such case the period of training may be proportionately increased."

Interrupted Training.—"That the Australasian Trained Nurses' Association be requested to amend their regulations so that probationer nurses who have been forced to leave a training school through ill-health or other sufficient reason may, on resuming their training in another training school, be credited with the time spent in the first mentioned, instead of being forced to commence *de novo*, provided the association be satisfied that the training has been resumed within a reasonable time."

A Protest.—"That this conference respectfully protests against the reported proposal of the Premier to appoint a board to allocate the Government grant between the various hospitals, with the object of withholding such subsidies from institutions which have surplus moneys in hand, as it appears to this conference that it is essential for the efficient and provident management of a hospital that it should, if possible, have at least one, and, if possible, two years' upkeep in hand as a reserve fund."

Formation of a Union.—On the motion of the chairman it was decided to form a union, to be called "The Country Hospitals Union of New South Wales," the objects of which will be:—"To watch over and protect the rights and privileges of country hos-

pitals; to take action in relation to any subject, or to any legislation affecting their interests; to bring about such a union of these hospitals as will enable reasonable influence to be brought to bear in any desirable direction; to bring about uniformity of rules as far as practicable; to use all suitable means to collect and disseminate all kinds of useful information calculated to assist and benefit these institutions, and to take united action in any other matters of mutual interest."

Further Resolutions.—"That the Government provide suitable accommodation for alcoholics in connection with police stations or elsewhere than at country hospitals." "That the Government should subscribe towards the cost of pauper funerals." "That where an old age pensioner died in a hospital before his instalment was actually due, the amount accrued should be paid to the hospital." "That all country hospitals should be empowered to insure their employees so that in case of sickness the institution would be compensated for loss of services and other expenses."

The Macedon Sanatorium for Consumptives, Victoria

ACCORDING to the *Melbourne Age*, some months ago an article was published in that journal showing that the Sanatorium for Consumptives at Macedon, managed by the society known as the Victoria Sanatoria for Consumptives, was conducted more for profit than for philanthropy, it being used chiefly for well-to-do patients, who could afford to pay fees, the proportion of beds for poor consumptives being absurdly small. It was also shown that the whole of the Government subsidy of £300 was paid to the secretary, Mr. W. R. Church, as salary, and that he also received a commission upon the collection of subscriptions. Under a threat of a stoppage of the subsidy the secretary's salary was reduced to £50 per annum. On August 5th Mr. Murray Smith, president of the Victoria Sanatoria, applied to the Government for an increase in the grant from £300 to £1000, stating that unless this grant was made it would be impossible for the institution to be continued effectively. The Inspector of Charities suggested that if the institution was reconstituted and conducted purely as a charity, dealing with applicants on the principle of first come, first served, increased assistance might be given. For some time past negotiations have proceeded between the Government and the committee, and recently the Premier called upon the president of the Board of Health for a report on the institution.

Dr. Norris has now furnished his report. It stated that there were not fewer than 2000 consumptive patients in Victoria annually who would benefit by sanatorium treatment. A majority of these was not in a position to pay for private sanatorium treatment, and at the lowest estimate 1200 must be provided for by charitable institutions, where payment would be made according to the ability of the patients. The average length of stay should not be less than three months, and therefore to provide accommodation for 1200 cases at least 300 beds would be required. It had been found in the old world that the best results were obtained where the number of patients in any single institution did not exceed 100. The accommodation at Green Vale amounted to 70 beds. Therefore, even if this were increased to 100 beds, further accommodation to the extent of 200 beds must be provided if the needs of this State in regard to the early stages of consumptives were to be met. Probably

a number of country hospitals would, if encouraged, provide a few beds for the open-air treatment of poor consumptive residents in their own districts. In this way perhaps 50 or 60 beds might be made available. The Victoria Sanatoria for Consumptives had in the past provided accommodation for from 60 to 100 patients, and he was strongly of opinion that provided the administration was placed on the basis suggested by Mr. Short, the institution should be assisted to the fullest extent necessary. He did not think there was any justification for the establishment, as suggested by Mr. Murray Smith, of an itinerant sanatorium, moving from place to place according to the season of the year. The cost of administration would be increased and there would be no compensating advantages. The premises at present occupied at Echuca should be closed, but it would be a mistake for the Government to take over the property, the value of which was problematic. He suggested that the committee should, as a condition of any assistance being given, be required to sell the whole of the Echuca property and use the proceeds towards liquidating present liabilities. The request that the institution should be subsidised sufficiently to enable the Macedon sanatorium to be maintained at full strength should be granted, on the condition that it was conducted purely as a charity, and on the further condition that there was no increase in the accommodation at the present wholly unsuitable premises at Macedon. A third suggestion had been made by Mr. Murray Smith which was reasonable and sound. It was that if a site suitable for all the year round occupation could be found, the premises at Macedon as well as Echuca should be sold and the proceeds be devoted towards the erection of an up-to-date sanatorium at the selected spot, the Government discharging the remainder of the cost and thereafter efficiently assisting in the maintenance of the institution.

Dr. Norris pointed out that the needs of the State with regard to sanatorium accommodation were still far from being completely met. There were suitable sites on Crown lands in the neighbourhood of Castlemaine, where a sanatorium for occupation during the whole year could be established. The Wilson Trust had already indicated its willingness to assist in this most important work, and was at present bearing the greater part of the burden in connection with the charity under consideration. In view of the infectious nature of the disease and the need of utilising sanatorium accommodation, not only for the cure of the disease, but for facilitating preventive measures, he advised that the Government should have a direct voice in the administration of the sanatorium.

The matter is now being considered by the Cabinet.

INSANITY IN AUSTRALASIA.

South Australia.

FROM Dr. Cleland's annual report we learn that there were in the Parkside Asylum December 31st, 1905, 565 males and 418 females, total 983; cases admitted during 1906, 125 males and 106 females, total 231; making the total number of cases under care during the year 1214. Of the cases discharged there were—Recovered, 58 males, 38 females, total 96; not improved, 3 males, 1 female, total 4; died, 63 males, 57 females, total 120. Total cases discharged and died during the year, 124 males, 96 females, total 220. Remaining in asylum December 31st, 1906, 566 males, 428 females, total 994. Average number resident during the year, 568 males,

421 females, total 989. The ratio of the insane to the population is the lowest since 1895, when it was 2.58 per thousand; in 1906 it was 2.56 per thousand. The decrease is on the male side. South Australia stands unique in this respect when compared with England and the other Australian States.

Admissions.—The ratio per 10,000 of admissions to the population was in 1906 as follows:—Males, 6.80; females, 5.88; total, 5.96. This is the lowest in the Australian Commonwealth. The admissions generally were 231, which includes returns from trial, or one more than in 1905, or 10 more than in 1900. Of the 221 admissions during 1900, 26 per cent. had been admitted on some previous occasion; whilst of the 231 admissions during 1906, 42 per cent. had been in the asylum before. This shows that fewer fresh persons in the population are becoming insane. The percentage of the admissions who were Australian-born was lower in 1906 than in 1900. In 1906 it was 51 per cent.; in 1900 it was 59 per cent. This is satisfactory as showing the stability of the Australian mind, because it was not due to a large influx of persons from beyond the sea diluting the native-born portion of the population. The distribution of the admissions as to age was fairly even in the different quinquennial periods. The ages on first admission of those who had had previous attacks ranged from 20 to 40 years. In considering the South Australian admissions for 1906, if the congenital cases are excluded, it is found that 74 per cent. would come under the heading of innate or hereditary tendency. The remaining 26 per cent. became insane, as far as could be judged, from causes that would produce grave mental disturbance in anyone—such as grave brain lesions, injuries to the head, and the prolonged effects of poisons, such as syphilis and alcohol.

Discharges.—The percentage of recoveries was below the average (56 per cent.), being the lowest on record, namely, 41 per cent. for both sexes. The average for females is 57.9 per cent.; for 1906 it was 35.8 per cent. The average for males is 54.8 per cent.; for 1906 it was 45.6 per cent. This is due to the advanced age of a large number of the admissions during 1906—36 per cent. of these being over 50 years of age. The ages of those who recovered sufficiently to leave the asylum during 1906 were evenly distributed between adolescence and middle age; the number over 50 years of age being very small. The length of residence in the asylum for nearly 70 per cent. was about six months and less.

Deaths.—During the past few years the death-rate has been higher amongst the women than the men. This is probably owing to the large number of senile cases admitted amongst the women. Fifteen of the female deaths were over 70 years of age; and senile decay was either a principal or contributing cause in 26 cases, as against 18 on the male side. The deaths amongst the women were as high as the recoveries were low, being in 1906 13.5 per cent. on the average number resident, as against 8.1 per cent. for the past 60 years. This is the largest percentage of deaths amongst the female patients on record. The death percentage on the male side was also high, but not to so marked an extent. Heart disease accounts for 28 deaths. Cerebro-spinal diseases accounted for 28 cases amongst the men and 19 cases amongst the women. Tuberculosis caused death in only one case; and there was no infectious epidemic. Four cases of typhoid fever occurred altogether. Diarrhoea and colitis were more prevalent than in 1905, but did not become epidemic. The great majority of the deaths occurred in those who had been less than a year in the asylum, showing that their vitality was much lowered on admission.

Expenditure.—The cost of maintenance was rather higher than it was in 1905; the daily average cost per patient was 1s 6½d per diem, or after deducting fees for maintenance 1s 3½d per diem.

New Zealand.

The number of registered insane persons in New Zealand at the end of last year was 3206, viz., males 1900 and females 1306, an increase of 49, being one in 298 of the population, inclusive of Maoris, or one in 286, exclusive of them. Of the insane 988 were native-born, and 2184 were not. The report of the Inspector-General of Asylums states that, though one person is insane in 2804 of the population, among the New Zealand born there is only one in 613·6, and among persons born outside the colony one in 129·2. The report states that one in 1000 of all immigrants, tourists, etc., become insane within a year, and contributed 4·7 of the admissions last year. The principal foreign immigrants, to the number of about 14,500, have a high proportion of insanity, viz., one in 113.

MEDICAL NOTES.

Charitable Bequests and Donations.—Under the will of the late John O'Neill, grazier, of Mansfield, Victoria, the following hospitals receive £50 each:—Wood's Point Hospital, Mansfield Hospital, St. Vincent's Hospital, Melbourne Hospital. The Women's Hospital, Melbourne, has received £800 from the estate of the late Mr. J. T. Holt. The street collection recently made in Adelaide for the Home for Incurables amounted to £537 19s 4d. The Sandgate Hospital fête, Queensland, realised £136 10s 5½d.

The New South Wales Railway and Tramway Employees' Consumptive Fund.—The officials of the Railway and Tramway Employees' Consumptive Fund are making a special appeal to their comrades in the services to assist those who have been stricken with consumption. They state that three of their fellow-workers have been discharged from the consumptive homes cured or relieved; two more are still at the Wentworth Falls institution, and from latest reports are improving. Each employee is asked to contribute at least one shilling, and those under the age of 21 half that amount. The amount required to treat each patient is about £40. The fund at the present time is practically insolvent, notwithstanding the year started with a credit balance of £118 11s 6d, to which had been added by collections the sum of £15 19s, or a total of £134 10s 6d. Of this sum, one patient had cost £32 12s 6d, while on two others the fund had been drawn upon to the extent of £59 12s 6d, and this expenditure was being increased by £9 for each additional four weeks' residence in the institution.

Cremation in South Australia.—The idea of cremation as a means of disposing of the remains of the dead is gradually growing in favour in Adelaide. It was some time after the Crematorium was available before it was used, but since then the process has frequently been utilised. Last month the remains of two well-known persons were cremated.

On August 20th the annual report of the Inspector-General of Hospitals in New Zealand (Dr. Valintine) was presented to Parliament. The total expenditure for the last financial year was:—Hos-

pitals, £184,865; charitable aid, £66,588; total, £251,453. The previous year's figures were:—Hospitals, £167,437; charitable aid, £103,272; total, £270,709.

Admission of Dentists.—Additional regulations under the Dentists' Act have been gazetted. They provide for the examination subjects and fees for candidates for admission to practise as dentists, and require that candidates under section 11, subsection C, of the Act shall produce satisfactory evidence of being 21 years of age and good character; of having been engaged for four years at least in the acquirement of professional knowledge in dentistry. The prescribed examination is divided into four parts, and no student will be permitted to take more than one section during any one year. The examination is fixed to take place in March each year, and the fee is five guineas. Students apprenticed previous to September 1st, 1907, are to be considered to have vested rights, and will require to be examined only in certain subjects.

St. John Ambulance Association.—The annual meeting of St. John Ambulance Association (N.S.W. centre) was held last month. Lieutenant-Colonel R. Vandeleur Kelly, C.B., presided. The expediency of taking steps to organise work for the systematic collection of funds towards the erection of an ambulance hall in the city was urged in the annual report. The extent of the year's work was revealed chiefly through the classes; 63 classes had been held, and 1200 members were receiving a full course of instruction. Added to the total of September, 1906, the figures gave a grand total of 12,442 persons instructed since the establishment of the centre. Of the candidates who attended the examinations, 950 obtained certificates and re-examination vouchers, and 48 gained the medallion of the association. The work of the St. John Ambulance Brigade in New South Wales had proceeded satisfactorily during the year. Every division had been strengthened by the addition of new members from the classes which the association had held. The following office-bearers were elected:—Patron, Sir Harry H. Rawson, K.C.B.; president, Sir Frederick Darley; vice-presidents, the Lord Mayor of Sydney, Brigadier-General J. M. Gordon, C.B., the president of the British Medical Association, Mr. J. A. Hogue (Minister for Public Instruction) Thos. Garvin (Inspector-General of Police) Lieutenant-Colonel R. Vandeleur Kelly, C.B.; executive committee: Lieutenant-Colonel R. E. Roth, chairman, Mr. Hanbury Davies, deputy chairman, Mr. Jas. Muir, Lieutenant-Colonel T. H. Fiaschi, Dr. T. H. Storie Dixson, Dr. G. Lane Mullins, Mr. W. Buchanan Gray, Rev. S. S. Tovey, Dr. J. Adam Dick, Major T. Morgan Martin, Dr. H. Hamilton Marshall, Major Leonard Dobbin, Mr. John Parry, Rev. Jas. Cosh, Mr. H. D. Walsh, Mr. A. T. Hendry; hon. treasurer, Mr. Chas. A. Maxwell; secretary, Mr. Boles R. R. Rainsford; hon. auditor, Mr. Wilfrid Docker, F.C.A.A.

Home of Peace.—A Home of Peace for the Dying was officially opened last month. The institution, which is to be controlled by the Church of England Deaconesses' Institution, is situated at Addison-road, Marrickville. It is a large cottage, within extensive grounds, known as "Eversleigh." Two sums, amounting to over £90, were subscribed some time ago as the nucleus to a fund for such an institution. Eventually it was decided to purchase for £2100 the building and grounds in which they were gathered. About £500 had been subscribed for the work, and many donations

of furniture had been received. The grounds gave room for extensive additions. A collection taken up during the afternoon amounted to £213 18s 2d.

Patent Medicines.—It is the intention of the Commonwealth Government to introduce a short bill, supplementary to the Commerce Act, in order to give it greater powers of control over the importation of patent medicines. The bill will enable the Minister of Customs—directly, and without any loophole for equivocation being given—to insist upon the labels of the bottles of all imported medicines bearing such indications as to the nature of the contents as the Minister may deem necessary. Sir William Lyne was under the impression that this power was already conferred by the Commerce Act, but he has been advised by the Crown Law officers that to remove all possibility of disputes arising a special bill is necessary.

The Journal of the University of Sydney Medical Society will be issued on October 21st; price 3s 6d. It is confidently expected that a new era in its history will be begun with the present number which, with the corresponding changes in the Society, has been moulded on an entirely new basis, and should now appeal not only to members of the Society as an efficient representative organ, but to all practitioners as a useful and reliable clinical journal. The aims of the editors have been to produce a medical magazine of practical utility. With over 60 pages of reading matter, which is exclusive of all local notes and news, it is hoped to realise the anticipations of being a good representative of the Sydney University, its School, its Society, its teachers and its scholars.

The management of the Melbourne Benevolent Asylum recently communicated with the health authorities and asked that an officer should be sent to sample the milk supplied to the institution. Four cans of milk are consumed daily. Samples from two cans were taken by the board's officer, and found to contain 19 per cent. and 15 per cent. respectively of added water. These facts were reported to the Board of Health, and a prosecution was ordered.

Regulations for the standardisation of milk and cream tests were passed by the Victorian Executive Council recently. They set out in technical detail the methods by which tests are to be made of milk or cream purchased for manufacture into butter, cheese, condensed milk, concentrated milk, or dried milk. The sample secured for testing is to be taken in such a way as to represent the average conditions and specific gravity of the whole.

A sub-committee appointed by the managers of Alfred Hospital to consider the question of providing separate quarters for night nurses (a sum of £350 having been bequeathed by the late J. Russell McPherson towards that object), has reported in favour of the erection of a building containing 14 small and two larger bedrooms, together with sitting-room, pantry, baths, etc. The report further recommended that the foundations be made sufficiently substantial to carry a second story, with a view to the whole of the nursing staff being accommodated in the building at some future date. The committee also recommended that the building be erected midway between the northern and southern boundary fences facing Punt-road, but 60 feet back from that fence. The managers have requested the committee to obtain a sketch plan and an estimate of cost from the architect.

PERSONAL ITEMS.

Dr. William A. Fairclough, formerly of Wellington, N.Z., has been made house surgeon to the Royal Ophthalmic Hospital, Charing Cross, London.

Dr. Colquhoun has been elected a life member of the Dunedin Technical Classes Association.

Dr. A. E. Cox, medical officer of the Foresters' Lodge, Forbes, N.S.W., who is leaving Forbes on account of ill-health, has recently been entertained at a smoke social, and presented with a gold sovereign purse and medal by the members of the lodge.

Dr. Dixon was recently presented with a marble clock by the residents of the Clifton district, N.S.W.

Dr. Stuart Kay, late resident medical officer at Sydney Hospital, has left for Taree, N.S.W., where he will practise his profession.

Dr. H. Buxton Ludlow, of Annandale, Sydney, who was thrown from his sulky through the axle breaking, and received serious injuries, is now progressing slowly towards recovery.

Dr. Charles L. Handcock, late of Goulburn, N.S.W., has purchased Dr. Clarke's practice at Ashburton, N.Z.

Dr. Edward Angas Johnson, of Adelaide, has been provisionally appointed a Vice-Consul for Mexico.

Dr. C. Bollen, of Woodville, S.A., has recovered from his illness and returned to Adelaide.

Dr. W. G. Brown has resigned his position as junior resident medical officer at the Perth Public Hospital, W.A.

Dr. C. S. Hawkes has left Brisbane for the South, and he will be away from town till the first week in November.

Dr. Hope, the retiring hospital surgeon at Winton, Queensland, was entertained at a wine party on October 1st, when Dr. Cameron, the new surgeon, was welcomed by a representative gathering.

Dr. J. C. Vero has been re-elected President of the Royal Society of South Australia for the fourth year in succession.

At the annual meeting of the Royal Society of South Australia on October 1st the resignation of Dr. W. L. Cleland as a member of the Council was received with much regret. Dr. Cleland was elected a fellow in 1879, and had been on the Council for 24 years, 14 of which he acted as secretary and three as president.

Dr. Frederick Goding, for ten years Consul for the United States in Northern New South Wales and Queensland, and resident at Newcastle, has received official advice of his promotion to the office of Chief Consul for the United States in Uruguay, South America. He will be stationed at Monte Video. The new appointment is a distinct advance in the consular service. He will probably leave for Uruguay before the end of the year.

Dr. Woods, of Clarendon, S.A., is leaving for England shortly, having sold his practice to Dr. Souter.

Dr. H. M. Evans, lately of Wellington, who has recently returned from a visit to England, has started practice in Adelaide.

Dr. H. Gilbert, after four years post-graduate study in England, has commenced practice at 8 North-terrace, Adelaide.

Dr. Trethowan, president, W.A. Branch, has left for a twelve months' trip to England.

Dr. Newton, honorary surgeon, and Dr. Harvey, honorary gynaecologist, have resigned their positions at the Perth Public Hospital.

According to a statement in the *West Australian Daily News* of September 19th, the Medical Board struck the name of Dr. Charles Swanston off the register of medical practitioners in consequence of certain charges laid against him. Mr. M. G. Lavan has issued a writ against the board for an injunction to restrain them from doing so, and the services of Mr. R. S. Haynes, K.C., has been retained.

Captain Bernard J. Newmarch, V.D., A.A.M.C., of Sydney, was on October 5th entertained by the members of the late 2nd Contingent of the New South Wales Army Medical Corps, to mark their appreciation of the kindly consideration they received from him in South Africa. The function was held at the North Sydney Masonic Hall, and was presided over by Quartermaster-Sergeant J. Howarth. Captain Newmarch was presented with a handsomely illuminated address expressive of the cordial relations which existed between him and his men, and it was embellished with views of South African battlefields, on one of which Captain Newmarch displayed conspicuous gallantry. Speeches were made by Captain Coulter (who made the presentation) Sergeant-Major Jones, Private J. C. Gates, the chairman, and others.

Dr. E. J. A. Haynes, of Perth (W.A.), has been made a Fellow of the Royal Society of Medicine, London. This is a new society created by the amalgamation of medical, surgical, gynaecological and obstetric societies.

Dr. H. Graves Bennetts, formerly of Temora, N.S.W., and later of Sydney, has returned from a 2½ years' stay in London and Europe.

Dr. H. Swift returned to Adelaide by the R.M.S. *Mooltan* on October 5th, after a six months' visit to England. Dr. Swift, as a representative of the South Australian Branch of the British Medical Association, was present at the recent meeting of delegates at Exeter.

Dr. C. P. B. Clubbe, honorary surgeon to the Royal Prince Alfred Hospital, is a passenger by the incoming steamer *Moana*, which will arrive in Sydney on November 1st.

Dr. Leon, late resident surgeon at the Creswick Hospital, Victoria, was tendered a farewell banquet on October 11th.

At the Café Eschenhagen, Brisbane, on October 10th, the officers, committee, and members of the Brisbane Liedertafel chorus and orchestra participated in a complimentary dinner in honour of Dr. W. S. Byrne, Mus. Bac., president of the Liedertafel, prior to his departure on a trip to Europe. For the last 18 years Dr. Byrne has been its vice-president or president. In returning thanks he hoped during his trip to be of some use to the society.

Dr. Bryan Foster, of Glenferrie, Victoria, has obtained a fellowship of the Royal College of Surgeons, Edinburgh.

Substantial grants to public institutions have been agreed upon by the Victorian State Cabinet. The list includes a sum of £4500 for the proposed School of Anatomy. It has also been decided to give £5000 to the Women's Hospital, on condition that an equal sum is collected for that institution; and £2000 to the Queen Victoria Hospital, on condition that an equal amount is collected.

MEDICAL APPOINTMENTS.

VICTORIA.

Conroy, Lionel Bigoe, M.B., to be Medical Superintendent of the Sunbury Hospital for the Insane during the absence of Robert Wellesley Lethbridge, M.B., on leave.
Frost, Albert Ernest, M.B., to be Officer of Health for the Shire of Marong.
Mullen, William Lowell, M.D., to be Medical Superintendent of the Ballarat Hospital for the Insane during the absence of John Steell, M.B.
Sawrey, Ernest B., M.D., and F.R.C.S. (Eng.), to be Honorary Assistant Surgeon to the Victorian Eye and Ear Hospital.
Steell, John, M.B., to be Medical Superintendent of the Yarra Bend Hospital for the Insane during the absence of William Mullen, M.D.

The following gentlemen to be Public Vaccinators for the districts set opposite their names, viz. :—

Blaubaum, Athol, M.B., Midland, *vice* Ferguson A. Lemon, M.B., resigned.
King, Henry Kirwan, M.B., Metropolitan.
Langmore, Percy Vance, M.B., South-Eastern, *vice* William O. C. Muir, M.B., resigned.
Langmore, Percy Vance, M.B., Shire of Berwick.
Naylor, Rupert George, Shire of Poowong and Jeetho, Poowong and Jeetho Ridings, *vice* James Shaw Milne, M.B., resigned.
Pollock, John, M.B., South-Western, *vice* John D. King Scott, M.B., resigned.
Rollason, Abel, M.R.C.S., Metropolitan, *vice* G. Gordon O. Phillips, M.R.C.S., resigned.

The following gentlemen have been re-elected to their positions on the honorary staff of the Alfred Hospital :—

A. V. Anderson, M.D., Hon. Physician; John Cook, Hon. Surgeon; Henry Laurie, M.D., Hon. Assistant Surgeon; J. S. Buchanan, Hon. Assistant Surgeon; E. L. Gault, M.D., Hon. Oculist; A. W. F. Noyes, Hon. Skin Specialist; Chas. L. Lempriere, Hon. Anaesthetist; J. T. Brett, Hon. Pathologist.

SOUTH AUSTRALIA.

Campbell, Susan Maud, to be Resident Medical Officer at the Adelaide Hospital.
Wilson, H. C., to be Resident Medical Officer at the Adelaide Hospital.

WESTERN AUSTRALIA.

Adams, Arthur Reginald, to be District Registrar of Births, Deaths and Marriages for the Ashburton Registry District, during the absence on leave of E. J. Gurdon.
Ambrose, Dr., to be Temporary Assistant Surgeon, Perth Public Hospital.
Cuthbert, John, to be Hon. Assistant Surgeon, Perth Public Hospital.
Gillespie, Dr., to be Acting Surgeon, Perth Public Hospital, during the absence on leave of Dr. Trethowan.
O'Brien, Mark, to be Acting District Medical Officer and Public Vaccinator, Newcastle, during the absence on leave of Dr. Crawford.

NEW ZEALAND.

Anderson, Arthur Leonard, M.B., M.S., M.D., to be a Public Vaccinator for the district of Wellington.
Brett, E. S., M.B., Ch.B., to be House Surgeon at Gisborne Hospital.
Harty, G. W., F.R.C.S., to be Honorary Ophthalmic Surgeon at Wellington District Hospital.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as legally qualified Medical Practitioners in their respective States, viz. :—

NEW SOUTH WALES.

Barnard, James Fox, M.B. (Melb.), 1900; B.S. (Melb.), 1901.
Jones, John Henry, L.R.C.P. (Lond.), M.R.C.S. (Eng.), 1899.
Thomas, George Henry Warren, L.R.C.P. (Lond.), 1885; M.R.C.S. (Eng.), 1874.
Venniker, John Charles, M.B., B.S., 1900, M.D., 1902, D.P.H., 1905 (Durh.); L.R.C.P. (Lond.), 1903; M.R.C.S. (Eng.), 1903; F.R.C.S. (Edin.), 1904.

TASMANIA.

Kempton, C. R., M.R.C.S. (Eng.).

SOUTH AUSTRALIA.

- Bell, Charles Cameron, M.B.C.S. (Eng.); L.R.C.P. (Lond.), 1902; M.B. (Toronto), 1900.
 Macquarie, Charles Nicol, L.R.C.P. and S. (Edin.); L.F.P. and S. (Glas.), 1891.
 Campbell, Sarah Maud, M.B., B.S. (Melb.), 1907.
 Gilbert, Henry, M.B., B.S. (Melb.), 1901; M.R.C.S. (Eng.), L.R.C.P. (Lond.), 1904; F.R.C.S. (Eng.), 1906.
 Wilson, Hugh Campbell, M.B. (Melb.), 1906.

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

BIRTHS, MARRIAGES AND DEATHS.

BIRTHS.

- AMBROSE**.—On August 27th, 1907, at 322 Hay-street, Subiaco, W.A., the wife of Theodore Ambrose, M.B., Ch.M.—of a son.
DAWKINS.—September 13th, at Hamley Bridge, S.A., the wife of Dr. Dawkins—a son.
HARBISON.—September 25th, at Wallaroo, S.A., the wife of Dr. W. H. Harbison—a son.
TERREY.—September 10th, at Rowallan, St. Mark's road, Randwick, Sydney, the wife of Dr. Hedley Terrey—a son.
REID.—September 17th, 1907, Myall, Watson's Bay, Sydney, the wife of Dr. C. W. Reid—a son.
WILSON.—September 22nd, at "Ebagooolah," New Farm, Brisbane, to Dr. and Mrs. Wilson—a daughter.

MARRIAGES.

- FLOOD—COOMBES**.—August 7th, at Monkstown Church, County Dublin, Ireland, John Wellesley, youngest son of the late John Wellesley Flood, A.B., M.B., T.C.D., L.R.C.S.I., of Yorketown, South Australia, to Rose, daughter of Captain Henry Coombes, R.N.R., of Southampton, England.
DONOVAN—FITZGERALD.—September 10th, at St. Mary's Cathedral, Sydney, Harrie Carisfort Edmund Donovan, M.B., to Lelia Alice, eldest daughter of M. J. Fitzgerald, Waverley.
ROSS—SCOTT.—March 20th, at All Saints' Church, Wickham-terrace, Brisbane, Thomas Gordon Ross, M.B., B.S., son of Thomas Ross, Melbourne, to Florence Marion, daughter of the late Walter Stott, Taromeo Station.

DEATHS.

- COLLIER**.—September 29th, at No. 51 Nicholson-street, Carlton, Melbourne, Dr. John David Collier, aged 58 years.
DAWSON.—September 21st, at Berry, N.S.W., Cecil Lacy, M.R.C.S., L.R.C.P., aged 44 years.
SCOTT.—September 7th, at his residence, "Glenburne," Smith-street, Summer Hill, Sydney, Robert Scott, M.A. (Glasg.), L.R.C.S., L.R.C.P., L.M. (Edin.), L.F.P.S. (Glasg.), late of Melbourne, Victoria, and Balmain and Redfern, N.S.W.
WALKER-SMITH.—October 7th, at his late residence, "Rye-worth," Ruby-street, Mosman, Sydney, Dr. John Walker-Smith, late of Glebe-road, Glebe.

BOOKS RECEIVED.

- Sea-Sickness: Its True Cause and Cure.** By H. Norman Barnett, F.R.C.S. Number of pages, vi + 39. Crown 8vo. London: Baillière, Tindall & Cox. Sydney: L. Bruck. Price, 1s 6d.
Transactions of the Royal Academy of Medicine in Ireland. Vol. xxv. Edited by James Craig, M.D., F.R.C.P.I. Dublin: John Falconer. 1907.

Th: Principles and Practice of Dermatology. By Wm. Allen Pucc, M.D., Professor of Dermatology, University of Illinois. With one coloured plate and 367 text illustrations. Volume of 1021 pages. New York and London: D. Appleton & Co. 1907. Sydney: Angus & Robertson. Price, 25s.

Secret Drugs, Cures, and Foods: Report of the Royal Commission on. By Octavius C. Beale, Commissioner. 1907.

The Glasgow Veterinary Calendar, 1907-8.

Encyclopedia and Dictionary of Medicine and Surgery. Vol. 5, *Inulin to Lumber-puncture.* Edinburgh and London: Wm. Green & Sons.

The Cause and Prevention of Beri-Beri. By W. L. Braddon, M.B., B.S., F.R.C.S. A quarto volume of xiii + 544 pages. London: Rebman Limited, 129 Shaftesbury Avenue, W.C. 1907.

We have received the following two volumes from Messrs. W. B. Saunders & Co., Philadelphia and London, per Mr. James Little, of Melbourne:—

1. **Modern Surgery, General and Operative.** By J. Chalmers Da Costa, M.D., Professor of Surgery in the Jefferson Medical College, Philadelphia. Fifth revised edition. Octavo vol. of 1283 pages, with 872 illustrations, some in colours. Price, cloth, 22s 6d.
2. **Gynaecology and Abdominal Surgery.** Edited by Howard A. Kelly, M.D., F.R.C.S., and Charles P. Noble, M.D. Vol. 1, a quarto vol. of 851 pages profusely illustrated.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Dr. A. B. Brockway, Brisbane; Dr. B. Anderson, Westbury, Tasmania; Dr. A. S. Vallack, Bowral, N.S.W.; The Editor, Chemist and Druggist, Melbourne; Dr. L. H. Harris, Sydney; Dr. Guthrie Rankin, London; Messrs. Mayer, Meltzer & Jackson, Melbourne; Dr. C. S. Willis, Sydney; Mr. G. T. Taylor, Hobart; The Government Printer, Sydney; Dr. W. G. Armstrong, Sydney; Dr. W. McMurray, Sydney; Dr. M. Jay, Adelaide; Dr. H. S. Stacy, Sydney; Dr. J. Ashburton Thompson, Sydney; Dr. Litchfield, Sydney; Mr. L. Bruck, Sydney; Dr. B. B. Ham, Brisbane; Dr. Todd, Adelaide; Mr. A. Ollé, Sydney; Dr. T. Fiaschi, Sydney; Dr. F. G. Griffiths, Sydney; Antiphlogistine Co., Detroit; Dr. Hy. Laurie, Melbourne; Dr. Hamilton Russell, Melbourne; Mr. D. A. Greenless, Sydney; Messrs. Scott & Bowne, Sydney; Dr. T. Ambrose, Subiaco, W.A.; Dr. E. S. Stokes, Sydney; Denver Chemical Manufacturing Co., Sydney; Dr. E. S. Jackson, Brisbane.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor."

We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON)
MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valerio Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. The *Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creosote." The *Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

AUSTRALASIAN MEDICAL GAZETTE

No. 314.

SYDNEY, NOVEMBER 20TH, 1907.

VOL. XXVI., No. 11.

THE MODE OF SPREAD AND THE PREVENTION OF PLAGUE IN AUSTRALIA.

A Report to Section V of the XIVth International Congress of Hygiene and Demography, Berlin, Sept., 1907.

By J. Ashburton Thompson, M.D., D.P.H., Permanent Head, Department of Public Health, Government of New South Wales.

THE way in which plague spreads is one and the same everywhere. If it has seemed to be not identical in all countries, I think observed differences casual and dependent on local habits. Man plays no part in it. Plague-epizootic on the rat is the essential factor in diffusion of this disease and in production of its epidemic form. Yet the plague-rat by itself is impotent. Its infection cannot be commonly communicated to man except with help of an intermediary. The efficient intermediary is the flea, which infests the rat and occasionally attacks man after its proper host has died. Prevention of epidemic plague consequently lies in habitually maintaining a distance between the rat and man, for measures directed against the flea can have scope only in special circumstances. The requisite separation between man and rat will be better secured by improving the construction of buildings than by attempts to exterminate the rat.

These conclusions were deduced solely from epidemiological observations made under favourable circumstances at Sydney in 1900 and 1902; they have since constituted the principles on which all efforts towards the control of plague in New South Wales have been directed. They were first published in July, 1903, and they have now been confirmed by the experience of five subsequent years. The data then collected reveal—as far as they go—the natural history of plague. Deductions from them form a complement to results obtained under experimental conditions in the laboratory, and may be used to control theoretical applications of the latter to explain field-experience.

REPORT.

Australia escaped invasion by plague until after the disease had appeared at the capital

of New Caledonia¹, an island which lies a thousand miles from Sydney, in the fourth quarter of 1899. The infection entered by way of Sydney, where attack in the first case occurred on January 19th, 1900. But the people had been threatened from the time plague appeared at Hongkong²,³, and their danger was apparently increased when it began to prevail at Bombay⁴, and at Mauritius⁵; for with all these ports Sydney has communication in the way of trade, which in the case of the two former places is regular and frequent. In short, it had seemed extremely probable that Sydney would be infected sooner or later long before its infection actually took place. Hence it has been my business to study the details concerning plague which were published from time to time during the six years 1894-1899, with a view to fixing upon some plan by which initial action might be guided as soon as the disease should appear.

Decision on the available material was difficult, although all that was required was some plausible hypothesis of epidemic plague to be held tentatively, and entirely subject to the results of experience. There was no lack of quantity, and on the clinical side it was nearly complete; but on the epidemiological side it was undigested, inexact, contradictory, and incomplete. Especially the fundamental question as to the share taken by the sick in diffusing the infection remained unanswered; in the general opinion it was predominant, and even to-day its extent, its nature, and consequently the conditions by which it is limited, remain uncertain for the majority. Two papers had been published, however, which (and which alone) seemed to me to constitute valuable contributions to the epidemiology of plague. E. H. Hankin⁶ had shown reason for thinking that the degree in which plague prevailed stood in relation to the accessibility of dwellings to rats, and in no relation at all to the poverty, filth, and bad ventilation in which people who inhabit dilapidated houses usually live. At the same date P. L. Simond⁷, in a brilliant and penetrative work, expounded his reasons for thinking that plague usually resulted from

inoculation, that inoculation was commonly effected by a parasite, and that the parasite ordinarily concerned was the flea. As to matters of fact these two papers were suggestive rather than conclusive, and for that reason, perhaps, had not the influence on the course of subsequent investigation to which, as it has turned out, they were entitled. However, on comparing them with the contradictory records already referred to, it appeared to me that they went far towards reconciling the latter. I determined, therefore, to guide initial action by them.

The defects in the evidence available to Hankin and to Simond, which had led the former to suggest that fragmentation of the carcasses of plague-rats by ants might so disseminate the infection as to contribute importantly to epidemicity of the disease, resulted from the conditions under which they had been compelled to work. Consideration showed it to be unlikely that good evidence on many important points would or could be gathered until an outbreak should occur among a civilised and homogeneous attacked people, under circumstances in which particulars concerning the infection of a majority of the individual could be learned with approximate accuracy, and in which the events of the epidemic as a whole could be discovered with completeness. The requisite opportunity seems first to have occurred at Sydney, where the population of about half a million was wholly white, wholly civilised, spoke the mother-tongue of the observers, and had been well-trained in obedience to the peremptory discipline of the health authority in the course of several epidemics of small-pox which had been summarily suppressed during the preceding 20 years. The first outbreak⁸ lasted from January to August, 1900, and consisted in 303 cases. A plague-free interval of 15 months ensued, terminated by commencement of a second outbreak⁹ in November, 1901, which lasted till June, 1902, and which consisted in 139 cases. It will be noticed that the numbers of cases were on the one hand large enough to avoid observational error, and on the other not so large as to cause embarrassment.

The question which most urgently required answer concerned the share taken by the sick in diffusing the infection, and on that point attention was concentrated during 1900. The evidence was as follows:—The requisite particulars were learned in 289 of the 303 cases. The 289 patients occupied 276 dwellings,

which for the most part were widely separated from each other. Of these dwellings 266 harboured but a single case apiece, although 37 patients had died at home at or before notification, and although a large majority of the remainder had lain at home three days or more before their cases came to knowledge. In 1902 these observations were completely corroborated. Thus, 124 of the 139 patients occupied separate dwellings, 115 of these dwellings harboured but a single case apiece; 14 of the patients had died before notification, and as in the previous year most of the remainder had remained at home for three days or more before they were notified. Still some houses did furnish multiple cases in both years, namely, ten houses in the first and nine in the second outbreak. These exceptions afford the means of trying the rule of non-communication of infection from the sick which is indicated by the experience in general; they must, therefore, be examined in detail.

The ten households of 1900 yielded 13 secondary cases. They could be divided into three groups. Group A comprised three households, each of which furnished a single secondary case. In them the hours of attack were so nearly simultaneous that communication of the infection between the primary and the secondary cases was excluded by the shortness of the interval. Group B also comprised three households, each of which yielded a single secondary case. A precisely contrary condition excluded the possibility of communication between the members of these pairs; it consisted in the length of the interval. Not merely did this exceed 22 days in all of them, but in it the primary patient had been separated from the rest of the family, the latter had been removed from home, and the house with its contents had been cleansed; further, in only one instance had the primary patient left hospital and rejoined the family before the secondary case occurred.

In group C were four households in which the time-relations of the successive cases were such that communication of the infection from the primary patients to the remainder was possible. All of the cases, both primary and secondary, were bubonic. One of these houses yielded four secondary cases. The primary case was removed within twelve hours of attack; the rest of the household remained at home for two days, and were then removed. On the third day after isolation of the primary case two, and on the fifth day

two more of them, fell ill. They were all under medical observation, and the hours of attack were seen to be very close in each of the two pairs; the first pair was isolated from the second pair at the first sign of illness. In two other households of this group which yielded one secondary case apiece, the intervals between attack of primaries and secondaries were three and four days; the components of both pairs fell ill at home before notification. In the fourth household the secondary case occurred in a child who had occupied the same bed with her mother during the latter's fatal illness, which had lasted eight days, and who was attacked 24 hours before her mother died. Interpretation of the examples in this group is facilitated by comparison with the circumstances of groups A and B. These show that the time-relation is of secondary importance. Exposure of both or all of the infected members of each household to the same conditions appears to have been the determining factor, and the circumstances of group C admit this explanation. When further comparison is instituted with the teaching of the 266 households in which no secondary case occurred, then, I think, the question of causation of the secondary cases in group C is answered. Regarding them as a whole, it seems very improbable that the cause could have been communication with the primary patient; but it is possible, or even likely, that the last case may have been so caused.

The apparent exceptions turn out, then, to corroborate and reinforce the more common experience. It is unnecessary, therefore, to examine the nine exceptions met with among the 124 households of 1902 at the same length, since they furnished 15 secondary cases which presented quite similar characters; but the features exhibited by one group were so striking that they must be detailed. This group D consisted of seven cases which occurred among a large number of people who lived at an hotel. Of these seven persons, five were attacked at the hotel; but before the first of them had fallen ill the other two had removed to two different dwellings at a long distance from the hotel and from each other, neither of which could be suspected of infectiveness. They had left the hotel in perfectly good health, and had not again communicated with it, nor with its remaining inhabitants, nor with each other; yet they fell ill at their new abodes—the one two days, the other three days after having arrived

there. No cases occurred in the two households they joined.

At the same time two other observations which bear on the question of communication from the sick were made. Total want of connection between successive cases was most often established with certainty; and the interval between them was often longer, and even much longer, than the incubation period of the disease.

All this evidence thus checked appears to me decisive, and to warrant a general rule, namely: The epidemic spread of plague occurs independently of communication of the infection from the sick. This general rule furnishes an indispensable foundation for all further investigation, and it carries with it a corollary which can be used as a touchstone of truth in many doubtful conjunctions, namely: The infection of plague spreads by means which are external to man, and independent of his agency as subject of the disease.

I do not know what caused the contrary opinion to be held in former times, for the grounds of judgment seem to me—in as far as I am acquainted with them—to be seriously defective. If, however, question concerning the causes of epidemicity be separated from question concerning possible communicability, then the latter must be answered in the affirmative. Primary plague pneumonia furnishes a conspicuous exception to the general rule, and the reason of the opinion referred to may well have lain principally with it, though it be now relatively uncommon, easily managed, and far from giving rise invariably to series of cases. The other forms also cannot be denied a possible importance in those days which, under much improved social conditions, they no longer possess; and, indeed, present-day experience among half civilised and poverty-stricken peoples rather seems to warrant this speculation, at least if imperfectly recorded experiences be liberally interpreted. In short, it appears to me that the dictum¹⁰ "every person who suffers from plague is capable of communicating the disease, and the danger is greater or less according to the form the disease takes" is justified, but in a general sense. It is useful as a warning. It omits to recognise the fact that realisation of the epidemic-danger depends not merely on the form of the disease, but chiefly on surrounding circumstances. If humanity and economy are to be regarded as desirable features in

measures for the prevention of plague the general rule must be recognised, and the reasons why exceptions to it sometimes occur, the natural limits to their possible effects if in any case they happen to be overlooked, and the conditions, if any there be, under which alone they could acquire national importance must be defined.

The foregoing analysis of the groups of associated cases shows that the primary patient was not the point around which they centred. It suggests that they were linked by the influence of some external condition to which all their members had been alike exposed. This hint accrued in the course of an inquiry which sought to discover merely whether the sick, as presumed centres of infection, in any way influenced the healthy who were in contact with them; consequently it was concerned merely with dwellings where cases had been harboured without any reference to the manner in which those cases had arisen. The suggested association of the infection with place was examined in a different way. If place were the determining factor, then groups should be discoverable which were composed of persons who were independent of each other in every respect save recourse to the same place. Such groups were found without difficulty. To mention those only which were indisputably established in 1900 by exhaustive investigations into the personal habits and circumstances of each of their component members, analysis of the records for that year resulted in recognition of 17 such groups. They consisted of from two to four persons in each, and they comprised a total of 43 persons who occupied 43 separate dwellings. These dwellings were almost always distant from each other, and for the most part stood in neighbourhoods which at no time fell under suspicion of infectiveness. The sole distinguishable bond between the components of each group consisted in their resort during the day to the same workplace, to which they did not return, or where they did not remain (as the case might be), after the onset of illness. Thus the evidence that the infection was not diffused by the sick met its counterpart in this clear evidence that infection could be taken by resort to places where no sick person had ever lain. Other such groups were noted in 1902 and in subsequent years.

Consequently it then fell to be inquired in what the infectiveness of locality consisted. A possible explanation was at hand. From

antiquity it had been observed that rats sometimes died in numbers in places where man died of plague; and after 1894, when it was first made possible to identify the disease in the rat with the disease in man¹¹ this coincidence was more regularly recorded. It was even observed occasionally that the rats suffered first. But whether the rat infected man, or man the rat, and whether both did not acquire the disease independently of each other from some source which was common to both, remained undetermined; and yet, as time went on, the often-observed coincidence came to be generally spoken of in terms of cause and effect as between rat and man, though still no definite warrant had been derived from experience, and though it had not infrequently been reported that epidemics had occurred where no evidence of presence of an epizootic had been collected. And while, on the one hand, the meaning of this coincidence could never be deduced from repeated examples of it in whatsoever number they might accumulate, on the other a too exclusive application of bacteriological possibilities to explain the data gathered in the field tended to divert attention from it even as a phenomenon which required explanation, and allowed a preponderating share in the causation of epidemics and epizootics alike to be ascribed to imagined factors. In the meantime this clue had been taken in hand at Sydney, and an attempt had been made to follow it through the maze which apparently contradictory observations had gradually woven. It broke. The general coincidence on areas was once more recorded, but the precise and more intimate connection between rat and man which would have revealed opportunity, at least, for direct communication of the infection could not be made out.

Had this result been purely negative it might well have been tentatively ascribed to merely incidental circumstances which, it might have been supposed, would be eliminated as experience was gained. But positive evidence also accrued which seemed to throw doubt on the efficiency of the rat as the essential cause of epidemicity. Thus in 1902 plague was bacteriologically identified in rats found on 40 inhabited or frequented premises, and yet these findings were accompanied by plague in man only four times. Again, when plague in the rat (whether identified or inferred) and plague in man did coincide on the same premises, much the most often but one person suffered out of several or even

many who seemed to have been equally exposed, of whom might be safely regarded as having been equally susceptible. Again, it was observed that the handling of dead plague rats was but rarely followed by infection; there were indeed apparent instances to the contrary, but it almost always (not quite) turned out that the handling had taken place much too recently or too remotely to have been connected with the cause of attack. Besides, even at that date it had become clear from common laboratory experience that dead plague rats are practically harmless provided their juices are not inoculated into those who dissect them. Two other observations to similar effect were made. When plague rats and cases did exist on the same premises it was most often possible to exclude contact, and even close neighbourhood, between them; and rarely the closest scrutiny failed to detect either rats or traces of infestation with them on premises where circumstances compelled the conclusion that the infection had been received. Contact with any live rat was found to be an extremely uncommon occurrence, and no case of rat-bite (which if the rat happened to be infected would almost certainly communicate the disease) was heard of. All of these data have not equal weight; nevertheless it thus appeared that the familiar crude observation of coincidence on the same area between plague in the rat and plague in man which is logically incompetent to establish causality as between rat and man, was incompetent in fact also as soon as it was examined under circumstances in which knowledge of all the details could be got in a considerable number of instances.

The effect of these carefully established data might well have been to divert attention from the rat, but for the knowledge already acquired that the infection spread by means which were external to man. Thus the immediate direction which further inquiry must take was indicated. And it was noticed first of all that the infection might suddenly manifest itself on new areas which were separated by wide tracts of plague-free houses from any other area up to that time infected, and might there set going a sub-epidemic which should run its complete course independently of the course of the disease on other areas. This event, of which I have now recorded many instances, showed that the infection could be harmlessly transported over inhabited districts of wide extent, be planted afar, and

there could take effect. In this phenomenon, it will be observed, there would be nothing unusual or noteworthy but for the fundamental observation that the infection is not epidemically diffused by the sick; and as it is not diffused by the sick themselves, so it seems to follow that it is not diffused by fomites either, for otherwise the evidence on the former point drawn from examination of the 266 and of the 124 plague-houses of the first and second outbreaks could not have been decisive, and might, perhaps, even have turned out to be unintelligible. It is also worth noting here that while a very short line of wharves at which the produce trade (hay, grain, chaff, potatoes, bananas, etc.) is carried on, has always been the immediate source of the local infection, all the sub-epidemics referred to began either at produce stores or at stables to which produce had been carried from the neighbourhood of those wharves.

It was further noticed that the connection between the infection and locality was transient. Thus the outbreak of 1902 occurred on the area which had been invaded in 1900, but as the number of cases was less than half as large, parts of it which had suffered in 1900 were entirely spared in 1902. Still, reappearance on parts of the same area, though only on parts of it, permitted a suspicion that the infection might not have been completely removed from it in 1900, and this necessitated a closer examination. But first, what at bottom is meant by the convenient phrase "infected area"? As soon as this question is formulated it is seen from the data furnished by the grouped cases analysed above that infectiveness of areas depends solely on infectiveness of particular buildings standing within them. Perhaps the most striking feature of the epidemic diffusion (at least, after its independence of communication with the sick) was the erratic and even capricious way in which the disease manifested itself. It appeared in buildings which though they stood in the same neighbourhood were yet well separated from each other. There was absence of consecutive attack of adjoining buildings. It became clear, also, that the infection of man depended, not on his inhabiting a neighbourhood, but on his having visited particular buildings within it. Now, when incidence of the disease on buildings in the two outbreaks was compared in detail, the following data resulted:—In the first, circumstances caused 221 houses to be regarded as places of infection; 215 of them

entirely escaped in the second. As for the remaining six houses, two of them were regarded as places of infection in the second outbreak only; in the first they had merely harboured persons who were thought to have received the infection elsewhere, so that four houses only were regarded as places of infection in both outbreaks. This seems to me a proportion so small as to be without significance, since re-invasion of the same area was almost certain to lead to re-invasion of some houses within it and, it might have been expected *a priori*, of a much larger proportion than four. Then, again, it was found that the simplest operations of the scavenger cleared the infection away from houses as well as from districts once for all. Mere sweeping up and destruction of accumulated rubbish, the pulling down of a few ruinous outhouses, and a general cleansing of alleyways and basements sufficed, without any disinfection properly so called. The more exact evidence on this head is drawn from examination of the isolated areas already referred to on which independent sub-epidemics had occurred; their uniform and (now) lengthy after history sufficiently proves the point. They were liable to re-invasion, of course, but it happens that plague has not reappeared on them. In short, the infection of plague does not inhere in places. Nor is there more than a remote analogy between the infectiveness of malarial places and the infectiveness of plague places, which latter is no sooner recognised than it may be summarily removed, and to which the disease in man is as nothing.

By these observations attention was forcibly redirected to the rat as cause, for they were at all events most completely explicable on the supposition that the infection was diffused by some animal which was free to wander among the dwellings of man, but which had access to the interior of only some of them. The kind of animal concerned was fixed, rather than indicated, by this hypothesis itself, because there is but one kind which lives in close association with man and at the same time is subject to plague. Many other kinds can be inoculated with this disease, and a few have been seen to contract it naturally; but the available evidence shows that they have always suffered secondarily, and that epizootic plague has never begun among them. Hence, it must be inferred, also, that plague is a disease which is proper to the rat. Another consideration seemed to

be worth some attention, although, doubtless, of a less cogent character; namely, while it is well known that the infection can survive outside the animal body for long under experimental conditions, it had practically never been identified outside it in nature notwithstanding the persevering efforts of many competent investigators. It remained, therefore, to endeavour by a special effort to establish some closer association between plague-rats and cases, or else to show that in reality such association existed but rarely and as an accident without significance for man.

By following the direction thus pointed out, I found that the required close association between plague rats and man did exist in the small number of cases which constituted the outbreak of a later year¹². There were but 12 cases, spread over the seven months March to September; they occurred in nine buildings. In the small central area, where the epizootic had begun before the first case occurred, seven of the buildings stood, yet well, or even widely separated from each other; the other two were situated at long distances from it, the one six miles towards the south, the other ten miles towards the north. In the two last-mentioned neighbourhoods no plague nor any suspicion of infection had ever existed; and the only feature by which they were distinguished from the rest of the metropolitan district (save the central area) was the ascertained presence of plague rats and of cases in the two buildings. So also the central area was distinguished from the rest of the metropolitan district (save the two distant neighbourhoods) solely by the presence of plague rats and cases in man in the seven buildings, and of plague rats unaccompanied by cases at other parts of it. The link by which these three widely-separated neighbourhoods were thus connected was also definitely discovered. Materials which experience has shown to be especially dangerous in connection with the introduction of plague into clean places, namely, hay, chaff, and corn in the one case, and gunny-bags and similar wastes to be used in paper making in the other, had been conveyed to the two houses from premises on the central area which were ascertained to be infected with plague in their rats. This instance should not be undervalued because the number of cases to which it relates is small. In epidemiological investigations accuracy and completeness are the essentials; large numbers introduce confusion and soon render

the method impracticable. As it was, the time and labour entailed by quasi-detective inquiries into the circumstances of the patient at home, at work, and at leisure, into those of the businesses with which they were connected, into the state of the rats on premises occupied or frequented by them, into the state of the neighbourhood of the premises as to rat-infection and as to freedom from it, and the establishment of dates by documentary evidence whenever possible, from time to time unduly taxed the attention of a staff not exclusively devoted to the investigation of plague.

The next point to which I would draw attention is the fact that epizootic plague is likely to be often overlooked. The most important of the obstacles to its easy recognition lies in its character; there are others which attach merely to the search-conditions. As regards its character, there is a prevalent idea that the disease is so easily and so rapidly communicated from rat to rat that large numbers must always suffer together, and that in its final stages it usually causes rats to leave the nests to which they have retired at its onset in accordance with the habit of sick animals, so that they die in the open; and thus, between the two, it is thought the presence of the epizootic cannot escape even the common observer. Both of these features have been noted, but often they are wanting, and oftener still they are indistinct. This appears not merely from my own experience, but from consideration of the evidence indirectly furnished by accounts of rat plague in many other parts of the world in which the point is not discussed. I give my own precise evidence immediately below; but before proceeding to recount it I venture an opinion that the very slow rate at which recognition of the rat as the essential cause of epidemic plague has improved is due, in part at least, to prevalence of this idea and to consequently inadequate searches. If, on the one hand, observed coincidences between plague in rat and in man on the same areas have accumulated in noteworthy proportions since 1894, and if during the last five or six years increased importance has gradually come to be assigned to the rat, on the other hand it must not be forgotten that occasional admissions of its active agency have been limited, that the infectivity of man and of the rat have lately been spoken of officially¹ almost as though they had equal importance, and that formal statements have from time

to time been made that epidemic plague can occur in absence of rat plague. The vague and unsatisfactory character of these latter seems to have escaped notice. I will not delay to examine them, and will only observe that sometimes they are unsupported by any evidence¹, sometimes they are supported by evidence which cannot but be regarded as inadequate¹ by all who have had practical experience of the difficulties with which demonstration of rat-plague is so often surrounded, and sometimes they have been supported by references to documents which are seen not to have the meaning ascribed to them^{1, 17, 18} as soon as the originals have been consulted.

As a rule, plague among rats in any district is so far from possessing a devastating character that its progress is slow, long-drawn out, and even insidious. The disease picks out individual rats, affects a minority of the horde at any one time, and exhibits its activity only in comparatively small circumscribed areas which are successfully attacked. On individual premises I have occasionally found almost the whole colony dead; but this has been exceptional, and even there the rule has been that few plague-rats and many more healthy rats have been collected during consecutive weeks. I have already published several examples^{1, 2} of this, which left little doubt of the fact; but the evidence was not perfectly good since it was impossible (save in one of those examples) strictly to exclude repeated invasions from the generally infected neighbourhood. Nevertheless, I can show from the cases of two ships that it was probably entitled to its *prima facie* value; and the chronicity of epizootic plague (not as disease, but as epizootic) seems to me a circumstance of so much importance in relation to plans for the prevention of plague that I shall describe them at some length.

The first example¹ is that of the troopship "Antillean," which sailed from Capetown on February 1st, 1901, after having lain repeatedly alongside in the docks at South Arm. She first touched at Albany, Western Australia, where plague has never existed, lay there in the stream for about 48 hours from February 20th, and sailed again for Sydney direct after having taken in a little coal. On February 22nd cleansing of the holds was begun preparatory to her arrival and the reception of troops, and during these operations about 15 carcasses of rats were discovered and cast overboard; no definite statement

as to their condition was got, but they were not dried up. She arrived at Sydney March 2nd, and reported one deck-hand sick; his case was clinically plague, the disease was identified by morphological, cultural, and inoculation tests, and he died on the fifth day of illness. The rats on board were destroyed by sulphur fumes and, as the vessel was in ballast, no difficulty was found in completely gathering their carcasses; the total number was less than 100. The great majority were free from disease; more than two, but very few, were infected. In one of the two plague was identified by morphological, cultural, and inoculation tests, and was ascertained to be present in the other by morphological and cultural tests. At Capetown^{22, 23}, history of unusual mortality among the dock rats reaches back to the middle of December, 1900, and the first identified plague-rat was collected there on February 4th, 1901. On February 27th, 1901, occurred the first case of the epidemic which, as is well known, comprised 766 cases; but inquiry revealed (in all probability) two earlier cases of which the first dated back to January 24th. It may be taken, therefore, that the infection present on board on March 2nd may have been active since a short time before February 1st, when the vessel sailed, but had certainly begun to take effect before February 22nd; yet a majority of the few rats carried were in good health, and this notwithstanding that the single store-room must have been a centre of attraction for all the rats.

The second case²⁴ is that of the barque "Alsterschwann," 2500 tons, which left Buenos Aires May 17th, 1903, after having shipped a full cargo of maize in bags at Rosario, and which arrived at Sydney direct July 29th. When this vessel got alongside many carcasses were found beneath the hatches; but as the latter had been specially closed tightly with some idea of saving the cargo from deterioration, it was supposed by the master that these rats had been stifled. Nevertheless the occurrence came to notice, and it was learned that 112 carcasses had been gathered and disposed of. The result of the search then carried out was collection of 51 rats and carcasses of rats, all of which turned out to be healthy except two, in which plague was identified by morphological, cultural, and inoculation tests. Then, after a first fumigation with sulphurous-sulphuric fumes, a further and larger number of carcasses were collected and

examined, among which, however, plague was identified in nine only. The search was necessarily more or less superficial, for the cargo was still in the holds, but after a second fumigation the barque was taken alongside and unloading allowed to begin; a great many more comparatively fresh carcasses were afterwards turned out, but the fact of plague infection having been fully established already further examinations were not made. Plague first appeared at Rosario²⁵ in September, 1899. The infection must have been carried on board the barque during 74 days, notwithstanding which a large majority of the rats which were examined were still free from plague.

General experience ashore, as distinguished from that derived from particular premises, was to the same effect. Thus the length of the epizootic periods in each of the four years 1903 to 1906, reckoned from the first day to the last day on which a plague rodent was identified, was four, nine, eleven, and eleven months respectively. The total number of rodents examined during each of these terms was 14,671, 43,822, 28,446, and 27,731. Although there were exceptions, they may be regarded as having been all taken on the same small area of the city, and they were collected by the rat-intelligence staff in a regular way, the numbers brought in week by week having been approximately uniform. All of them were examined in the laboratories, and plague was identified in 161, 243, 141, and 174 of them. Some of these identifications were recorded in each week of each of the four terms, except the last, which practically ended in the eighth month. The small proportion of plague rats attracts attention, and is due in part to the account having been restricted to those carcasses in which the disease could be bacteriologically recognised. Other carcasses were submitted which were too far advanced in putrefaction for that kind of examination, some of which may be presumed to have resulted from plague; but their number was not large, and if reckoned would not materially disturb the proportions mentioned, and would not at all disturb the time relations.

This evidence shows, I think, that epizootic plague may pursue a chronic course, and that its long continuance may not be attended at any stage by such a mortality as could not be easily overlooked. Indeed, the figures just quoted show that there is difficulty in proving that any of the epizootics referred to did much damage to the rat tribe

as a whole. But this difficulty owns two causes at least. As the putrefying bodies of plague rats are not a cause of nuisance much more often than are those of the rats which die from day to day in the natural course, I suppose most of them die in the nests to which they have retired on first falling ill. Another cause is the conditions which prevent dwellings and warehouses from being thoroughly searched unless the sanitary staff has taken possession of them; privacy and the course of business cannot be so hampered without substantial reason. However, when whole blocks of houses have been taken in hand and systematically cleansed, no remarkable number of rats ever has been turned out. When that course has not been taken, then the difficulties in the way of securing plague rats save in small number have lain in the fact that only healthy rats, active in their search for food, are likely to be, and as a rule are, trapped; yet trapping is the only means available to an intelligence-staff, for systematic poisoning no more leads to discovery of carcasses than does plague itself.

Under all these circumstances, it will be perceived, rat plague might easily be overlooked in places where the search cannot be or is not systematically and thoroughly carried out, and I have no doubt that it has occasionally escaped detection in this or that isolated area at Sydney, even when the contrary conditions obtained. It will also be judged, probably, that elaborate rat diagrams are not worth the labour of planning, for the figures on which they are based are necessarily incomplete, and largely result from incalculable chances by which even their relative value is vitiated. The fact is that the whole truth concerning epizootic plague cannot be learned, and he who should accept the greater or less number of carcasses observed in circumscribed districts as indicating greater or less need for energetic measures, would often be deceived. The best search can at most only enable the limits of the area over which the epizootic has extended to be defined, but that it can do with considerable accuracy. From all this a very important practical rule derives, namely: Discovery of a single infected carcass should be taken as peremptorily indicating the most thorough scavenging and cleansing of the neighbourhood in which it was found. Rarely will the labour entailed have been spent in vain. The case is quite different with an imported case in man; that, as we have already seen, calls for no action in respect of the neighbourhood.

Here a note on the species of *Mus* met with at Sydney, on their susceptibility to plague under natural conditions, and on the observed association of the different species with plague in man, may be usefully inserted. The species are *M. decumanus*, *M. rattus*, together with its Alexandrine variety which it is unnecessary further to mention separately, and *M. musculus*. These comprise all which have become domesticated. Plague has been identified in all of them, and in such numbers as shows, I think, that the proportions of each species enumerated in any year depended rather on local distribution than on any difference in susceptibility. In the first year to which I now refer plague was identified in 86 D., 26 R., and 49 M.; in the second in 106 D., 73 R., and 62 M.; in the third²³, in 78D., 45 R., and 18 M.; in the fourth²⁷, in 46 D., 89 R., and 39 M. I have found each of the two species of rats infected and associated with plague in man by itself, as well as the two together on the same premises. Infected mice have never been found alone in that association, so that I have nothing which points to the mouse as an efficient cause of plague in man; on the other hand, I have not observations sufficiently extensive to show that it does not so act. In a short series of nine houses, infected *M. musculus* was once actually found alone in association with one case of plague, but rats had at the same time died in number on the premises, although none were secured in a state which admitted of identification of the infection; *M. decumanus* was associated alone in the second, *M. musculus* and *M. decumanus* together in a third, all three species together in a fourth and fifth, and *M. musculus* with *rattus* in the remaining four. All the rats on the troopship "Antillean" (see above), on which was one case of plague at arrival, while another (to which it was unnecessary to refer before) occurred in connection with cleansing of the storeroom, were *decumanus*. All those found on the other vessel, the "Alsterschwann," were *rattus* in its Alexandrine variety; in that instance no one was infected either among the crew, or among the many persons engaged in unloading and in disinfecting her. In a rural district 300 miles from Sydney, where twelve cases occurred in ten houses, all the rats (1128) taken, whether in the houses or in farm buildings or on river banks, were *decumanus* with three exceptions; all the infected rats (101) were of that species, and there were two infected mice. At an important seaport 70 miles to

the north of Sydney, where an outbreak consisting in 14 cases occurred, plague was identified in 206 rodents out of 6653 examined; 171 were *decumanus*, 13 were *rattus*, and there were 22 mice. The association of the infected species with plague in man at this place in the 11 cases which could be so examined was *decumanus* alone eight times, *decumanus* and *musculus* together twice, and *decumanus*, *rattus*, and *musculus* together once. The species found in connection with two large warehouses at Sydney where eight cases occurred was *rattus*; all the patients recovered. That connected with six cases which occurred at a small hotel was also *rattus*, and two of these patients died. The records might be further examined with quite similar results, but perhaps enough has now been said. After having mentioned the caution that the following opinion does not result from complete knowledge, but only from what happened to be discovered, I may point out that the experience appears to indicate *M. decumanus* as rather the more susceptible, and practically rather the more dangerous. At all events, the suggestion recently made that in this relation *M. rattus* is the species to be feared, and that *M. decumanus* is, or perhaps may be, harmless, would fatally influence preventive operations at Sydney if it were adopted, and if it were possible to so conduct the destruction of rats as to spare the *decumanus* species on the ground that it would eventually destroy *rattus*. Doubtless there are variations in the susceptibility of the two species, and of each species in different countries or even in different parts of the same country; but I incline to think that the proportions observed to be infected depend primarily on local distribution.

If the evidence in general which has been adduced be now reviewed, I think it will be admitted that it goes very far towards proving that epidemic dissemination of the infection is effected by the rat alone. But it does not in any way explain communication of the infection from the rat to man. The evidence that the dead plague-rat is commonly harmless to man, though opposed by it, is not rebutted. The observation that association with plague-rats is most often without consequences to man remains unshaken, as also does the more important observation which teaches that when association has been accompanied by infection of man much the most often only one person has been infected out of the whole of the

exposed party. This led me from the first to suppose that solution of the epidemiological problem lay entirely with the manner in which the infection is communicated to man²⁸.

Practically, the ways in which man may take the infection, that is to say, the ways which may so frequently come into operation as to cause epidemic prevalences, are but two—namely, inoculation and feeding. The pathological evidence thus far relied upon to establish infection through the digestive tract in reality merely shows that the disease often involves that part of the body. It does not show that it has entered the body by that route. Quite recently, however, the variable success attendant on feeding experiments with animals has been made the subject of a special investigation²⁹, conducted on the assumption that the virus is liable to be destroyed by contact with the acid contents of the stomach (as in cholera), and that greater certainty might be attained were it protected during its passage through that organ so as to be released in the ileum, where it would be exposed only to alkaline liquids. This hypothesis, it is said, has been justified by the results of feeding animals with small infected masses so dried externally as to resist peptic digestion. On the value of these results I am incompetent to offer any opinion. But I may draw attention to the practical considerations which prevent me from seeing how this mode of infection could operate in man, save exceptionally. The requirement is that the virus shall be discharged by rats (or by man) in small masses of the secretions of the body such that they may dry externally so as to form a protective envelope to the virus in the interior parts; and in these experiments the drying took from 24 to 48 hours, even over sulphuric acid. Discharge in the required form no doubt can happen; but the essential drying, I think, could not be brought about under natural conditions so as to produce infection of man, because his food either is moist itself so that the drying would be prolonged, and putrescible, so that it must be speedily eaten; or it is moist though not putrescible and cannot be eaten (or at all events is not eaten) after the drying which a few hours brings about (bread); or it is dry, but too uncommon an article of diet to enter into a general cause (biscuits); or, lastly, it is dry, but incapable of being eaten until cooked (potatoes, grain). As between rat and rat the last-mentioned objection does

not hold, and if the experiments referred to should be successfully repeated by others it would then appear that rat-infection may occur in this way; however, I am not now considering that point, but the mode of communication between rat and man. Certainly the infection of man is not commonly brought about by feeding, and it seems to me that this conclusion rests securely on the general pathology of the disease.

The same pathological evidence strongly supports the more generally received opinion that the infection is taken by man by inoculation. Indirect evidence is furnished by the observation that the frequency with which buboes appear in this or that region of the body is closely proportionate to extent of the drainage-area from which the lymph which is filtered in the glands of those regions has been drawn³⁰. The bubo is the characteristic lesion of plague, and is seen in all those cases in which resistance to the infection has been sufficiently strong. Its absence merely shows that resistance was defective, either absolutely or in relation to the dose or to the strain of the inoculated virus; and when the bubo does not form then primary septicæmic or primary pneumonic plague results. The bubo appears where the assault on the body was first delivered and was most strenuously resisted, and it is distinguishable from the general glandular enlargements which later occur in every part of the body by the vastly greater damage done to the gland. All the lymphatic glands ultimately exhibit some rosary tumefaction; but one, or rather often two or three adjacent and immediately connected glands, alone show evidence of the violent struggle just mentioned in hæmorrhage, necrosis, and periedenitic effusions, and they alone indicate the area of skin into which the virus was inoculated.

Inoculation into the skin might be effected in two ways. The virus may be deposited by rat or by man on inanimate objects with which the skin of healthy man may come into contact. Such conjunction is not sufficient to infect, as is seen from the impunity with which post-mortem examinations are habitually made unless the skin happens to be wounded. The uninjured skin is an efficient defence against infection by casual contact with the virus. These considerations have long been entertained, and originally it was thought that the preponderance of groin buboes among unshod people resulted from absorption of the infection through the

wounds commonly present on undefended feet. But at a very early stage comparison between shod whites and unshod natives exposed on the same area showed that groin buboes preponderated among the former just as they did among the latter. So, in 1900, I observed that out of 286 habitually shod persons who exhibited buboes no less than 73 per cent. had them in the groin³¹. Casual inoculation through pre-existing wounds of the skin of the lower extremity is not the reason, then, why buboes are most commonly found in the groin. Nevertheless, probably infection could take place by that means; but difficulty in accepting this as the common explanation arises, as usual, in direct observation. Wounds of a competent character are rarely exhibited, and when the patient can account for them I have often found either that they were received after the probable date of infection, or so long before it that the trivial abrasion must have healed at a date prior to that of infection sufficiently to prevent entrance of the virus by it. Recognition of this mode of infection as the common mode rests entirely on theoretical grounds. Minor abrasions heal sufficiently to repair defences in 24 hours; and on reflection it will be perceived that rats can deposit the virus only on few and scattered spots, and that the chances against apposition between them and that small part of the body which carries some slight abrasion before lapse of the brief time within which the latter becomes repaired, must be incalculably great.

In 1902 I proceeded to inquire into the way in which man came to be inoculated in the course of daily life by the same method as had yielded the valuable results already described in connection with other points, and to seek in the field some explanation of the fact that such inoculation takes place in the lower extremity more frequently than elsewhere^{32, 33}. First, I found that 106 of the 139 cases of that year exhibited buboes in the groin. But as buboes in the femoral chain alone are evidence of inoculation in some part of the lower extremity, 46 cases in which they were situated in the inguinal chain had to be thrown out; 60 remained. But the majority of these 60 were for various reasons not available for my purpose. Thus, in 16 of them either the place at which they were infected could not be determined, or the evidence for infection at home and at work was equally cogent, while in 25 others it was considered that the infection had been received at home,

where, consequently, the patients had been exposed at bedtime to the risk (if any) attaching to bare feet which it was necessary to exclude. In four others the general history of the patients was defective; and in still three others, although infection probably did take place at work, the evidence was considered to be not quite unimpeachable. The result of this rigid sifting was the rejection of 48 of the 60 cases, so that ultimately 12 remained in which *solitary* buboes situated in the *femoral* chain were exhibited by persons whose movements had been ascertained with certainty, and who beyond reasonable doubt were infected while at work. At their work places they were all fully clothed; but their skins were not completely protected by their clothes. Their hands and arms, their faces, necks, and (as the weather was hot) often their chests, too, were exposed; only their lower extremities were invariably protected by boots, socks, and trousers or petticoats. Yet they were inoculated not in their exposed parts, but in their protected parts. The deduction was almost obvious, and quite unavoidable. Inoculation must have been effected by some agent to which neither clothes nor the epithelium offered insurmountable obstacles; by some agent which could evade the one, and which could penetrate the other without causing either noticeable pain or a visible wound. The flea alone answered these requirements. Moreover, within buildings fleas live in the dust between flooring boards and in corners, outside them in the soil, and notoriously reach the legs first in places where they abound.

When these observations were first published (1903) there was very little experimental evidence that the flea possessed even the power of communicating plague between animals. It was limited to Simond's successful attempts in two experiments out of four made with an undetermined species of flea (1898), and the five successful experiments reported five years later by Raybaud et Gauthier^{34, 35}, which were made with the species *Ceratophyllus fasciatus*. Against these rare successes were to be set the greatly larger number of failures reported by several competent observers, and from my own laboratory. Since then, possession of this power by the species *Pulex cheopis*, Rothschild, has been placed beyond dispute by the first report of the Plague Research Committee, which was appointed as the outcome of representations made by the Lister Institute to the

Secretary of State for India in 1905, and which is still working in India under direction of Dr. Charles J. Martin, F.R.S., Director of the Lister Institute³⁶. It may be expected that in its next report the committee will be able to define the conditions under which this power is exercised, both in relation to species of fleas and to mechanism. Probably all fleas share it on condition that they are of kinds which infest rats and sometimes attack man. This is the more likely that the position of the bacillus among the schizomycetes seems to connote a merely mechanical transference of the infection by the flea³⁷; but on the other hand my field observations seem to me to require duration of the power to infect over considerable, and even over rather long, periods³⁸. In conclusion on this head I would point out that although the experimental demonstration thus furnished is essential, and may be accepted as affording ground for inferring that the virus can also be conveyed by the same means from lower animals to man, yet the importance of this mode of infection as a factor in production of epidemic plague can be established only by observation in the field of daily life. I conclude from the investigations which have just been described above that while plague may be casually acquired by man in several ways the flea is the ordinary agent of his infection, and it as well as the rat is indispensable to produce epidemicity.

Thus the lines which must be followed in efforts to prevent or to check plague are very clearly indicated. It is not possible to discuss this subject in detail within the limits assigned on the present occasion, but a few leading points can be mentioned.

In the first place, notwithstanding that plague is not *maintained* by communication of the infection from the sick, yet it is communicable from them and occasionally is seen to be so communicated. Further, although such communication from them as occasionally takes place cannot by itself give rise to epidemics, the following consideration is entitled to weight, namely: Since plague can be and generally is communicated from rat to man by the flea, so it must be possible for it to be communicated from man to the rat, an accident which might bring about an epidemic. But the frequency with which this risk will be encountered depends first on parasitic infestation of the patient, secondly on his proximity to rats, and thirdly on his disease having reached the septicæmic stage.

These are chances which must weigh importantly in all countries against communication of the infection from man to rat, although in some they may have less influence than in others. Plague in the rat is almost always a septicæmic disease, but in man the primary septicæmic form occurs much less often than the bubonic; yet any bubonic case may become septicæmic shortly before death, and many do so. My own experience has furnished little which pointed to transference of the infection from the sick even to man when the circumstances have been fully discovered. In some cases which at first seemed doubtful, inquiry ultimately established presence of plague rats, or in a few in which nothing explanatory of the infection could be found, the evidence as a whole was so defective that they had to be set aside as merely undetermined; but in three or four probably the infection was so communicated. In some countries, as, for instance, India, a contrary experience may perhaps be common, and in course of time may be shown to be so on tangible evidence; still, India is a country where association between people and rats seems to be much closer and more nearly universal than elsewhere. However that may be, I would express the opinion that every case of plague should be segregated, and I note that every case has always been and still is segregated at Sydney within a few hours of notification. Never have I had reason even to suspect that the infection had been communicated from man to rat.

Secondly, it would seem that preventive measures should be directed, not only against the rat, but against the flea, and this course has been advocated. I think it evident that it cannot be taken with hope of practical success, save in special circumstances. They are these: When plague rats have been found in a dwelling or other building which is about to be cleansed, the first thing to be done is to spray the floors very freely with a 5 per cent. solution of coarse carbolic acid, or an equivalent solution containing mixtures of the tar acids. This is a very effectual method of driving away and of killing fleas, and thus of avoiding the only risk connected with the cleansing of plague-infected premises. The residuum left from the distillation of kerosene is also efficacious for this purpose; but it is a stinking and oily substance, of which the use is limited by those qualities. For the rest, it seems to me that effort to destroy fleas,

which cannot be successful, must divert attention from the rat, or at least divide it. Now, the flea derives its importance from the rat; and although it wanders to some distance after its host has died, still the direct attack should be upon the rat. The rat is the *fons et origo* of the infection for man.

Rat destruction is a subject on which a great deal might be said. Extermination of the rat is impossible with any means thus far made available. Perhaps larger numbers have been destroyed during several years at Tokyo³⁹ than anywhere else, and yet it was hardly possible to recognise any impression made on the rat tribe as a whole. My own experience has been similar; but from time to time diminution in the numbers present in circumscribed districts has been produced by energetic poisoning and trapping. This has importance in relation to the limited areas over which the epizootic extends at any one time. The available methods of destruction are trapping and poisoning; smoke rockets are very useful in burrowed ground. But although occasions will arise from time to time on which effort may be directed to destruction of rats known to be present, as a rule infected neighbourhoods must be dealt with in a more general way, by scavenging and destruction of accumulations or places in which rats have found, or probably may find, harbourage, and especially by storing food and food wastes so that rats cannot reach them. These operations should be guided not by rats seen, or even traced, but by the conviction otherwise acquired that rats must be present, seen or not seen, wherever man has been infected, and can be driven out. Unless rat staffs are firmly impressed with that belief such operations will seldom be thoroughly successful.

Lastly, the difficulty of arresting rat plague is, in my total experience, in direct ratio to the bad construction of wharves, quays, and the buildings upon and near them. The danger to man from plague is everywhere directly proportionate to the accessibility of the interior of buildings to rats, although it is not quite absent outside them. When the difficulty of staying the infection by action directed to the rat is considered, and above all, the impossibility of staying it within so short a period of time as shall effectually avoid the danger to man, I think it will be perceived that the rational method of defence lies in so improving the construction of buildings as greatly to impede the entrance

of rats to them, and in so taking care of food that it shall not attract them.

In a broad view, then, all other measures must be considered as subsidiary to reconstruction of ill-built wharves, stores, and warehouses, and to such repair and special fittings of inhabited houses as will keep rats outside them. It is easy to convince the intelligent laity that this advice is based on sound reasons; but unfortunately it is very difficult to satisfy them that the considerable expenditure it connotes will yield an appreciable profit to the community, and an efficient protection to individuals against losses which sometimes are almost ruinous.

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A METHOD OF DEALING WITH THE ABDOMINAL WOUND IN ORDER TO PREVENT POST-OPERATIVE HERNIA.

By J. M. Y. Stewart, M.B. and C.M. (Glas.), Surgeon to the Public Hospital, Perth, W.A.

THE subject of the short paper I am about to read is one which appeals to all who have made abdominal surgery a feature of their work, first as an after result, which it is advisable to avoid, and second, as a condition which they may be asked to remedy in order to give the unfortunate a less miserable existence.

I am not attempting to show that post-operative hernia is a condition that should never occur, or that its occurrence is, *ipso facto*, evidence of bad surgery, because all will admit that at times rapidity in the performance and completion of an abdominal operation is an absolute necessity, and the life of the subject rests on that alone; in such cases the presence of a hernia at the seat of election is of such trivial importance that it does not demand more than a passing thought; but in the majority of abdominal cases one has the time at one's disposal to take every possible care in the closure of incised tissues, and so reduce the probabilities of a hernia to nil in so far as adjustment of the tissues go and the thoroughness of the technique is concerned.

Most surgeons, for exploratory purposes at least, select the middle line of the abdomen for incision, and until recently the usual method was to go through all the tissues in the middle line; the closing of this wound was then performed by interrupted sutures passing from skin to peritoneum and back from peritoneum to skin; these were inserted according to the judgment of the operator, and when all were in position they were tied one by one, all possible care being taken to avoid the inclusion of any part of the abdominal viscera; these sutures were tied tightly, considerable force being used in

the process, and some in nearly all their cases put through and through safety sutures, perhaps three or more of silver wire, which took the major portion of the strain when vomiting or straining ensued as the subject returned to consciousness. What was the condition of the tissues which were held by these sutures, the muscle tissue more particularly, practically strangled by the sutures on either side of the line of incision? They were rendered immovable, or were accorded so little movement that they became separated or torn away from the rest of the muscle which lay external to these sutures, and was in no way impeded in its sudden and often violent contractions while the subject was vomiting or tossing about, the result being that the area around the seat of election was rendered weak, and not, as was intended, stronger by these strong and tightly-tied sutures; this condition of things in a few months led to a thinning of the abdominal wall, and when the subject returned to his or her duties a weak area developed, followed soon after by a hernia, which soon demanded support of some kind or another, with the almost constant result of firm adhesions of the contents to the sac and the sac to the more superficial tissues, so that on palpation the mass appeared to be only covered with a thin layer of skin and frequently was exquisitely tender.

When antiseptics gave way to asepsis, and the fear and reverence of opening the abdomen rapidly subsided, it became evident that the less the tissues were strangled and the nearer the condition of the closed wound approached the tissue state prior to operation, so would the dangers of a post-operative hernia decrease (providing, of course, that the tissues were in the first instance healthy). To achieve this end layers of sutures were introduced to close the peritoneum, linea alba and skin; still, safety sutures were introduced, or, rather, were retained, but were passed down to, but not through, the peritoneum, and out again on the opposite side of the wound; these were not so numerous, but still they passed through the rectus on each side, and, when tied to take the main strain, they strangled these portions of the muscles median to their curve of transit, and were therefore a means of weakening the scar or union of the tissues; they also, like the old interrupted through and through sutures, were passed blindly through the tissues, and in many instances it is more than likely that (the needle having a cutting edge as well as

a point, in order to penetrate the skin easily) often and often one or more of the muscular vessels were lacerated and blood escaped into the muscle tissue and into the sheath. In a few days the temperature rose, and on removing the dressings a fulness was seen, or the subject located a tender spot, or even pus or pus and dark blood flowed out from between the edges of the wound; this was of very frequent occurrence when silk was used for through and through suturing, but even with the use of silkworm gut or fishing gut the same condition developed at times. This was a condition that the operator did not feel at all proud of, because he had got past the union by granulation stage, and did not desire to see the old "laudable" pus bathing the wound, which at one time rejoined the heart of the surgeon; the misnamed safety sutures being left out, the surgeon found that though the incision in the middle line when carried down to and through the peritoneum was the one which gave the least disturbing of the tissues; it was also one which was apt to give way easily, as the vitality of the linea alba was low and thick sutures were not to be commended for layer stitching owing to the uncertainty of their being absolutely sterile, or of their being completely absorbed within a reasonable time, or their being non-irritating, if not absorbed.

It was then suggested and practised by some surgeons that the incision be made parallel to, but to the right or left of, the middle line, that it be carried through the sheath of the rectus, and that the fibres of that muscle be separated, held apart by retractors, and the peritoneum opened all in the same plane; the through and through stitches were again tried, but still the same trouble arose, viz., the weakening of the abdominal wall at that point. Layer closure also was not quite satisfactory, as often the nourishing vessels to the inner portion of the rectus had to be tied and the muscle tissue would waste. So far the method now coming into vogue appears to overcome the various dangers that have accompanied those methods I have already referred to, and it is to Sutton all credit is due if it should prove the ideal method of the future.

Since adopting this method in every possible case, I have been unable to discover any who have developed post-operative hernia during the last five years. I cannot, of course, truthfully say that I have kept in touch with every case in which this method

deep layer of fat between the sheath and the skin, a third line of catgut suture can be used to bring the fat surfaces together. The skin may be brought together as seems best to the operator, either by interrupted silkworm, horsehair, subcuticular catgut (Kelly's), continuous overstitch, or as is shown in the diagram (fig. 8), by Michel's skin clips, and the usual dry dressings applied. Some use long strips of adhesive plaster to steady the abdominal wall; but, except in very fat subjects with loose flaccid belly, I have not found it necessary, and it certainly does not add to their comfort if put on sufficiently tightly to be of any real use.

It is, I venture to think, apparent that when vomiting, etc., comes on, the recti are in no way hindered or interfered with in their action, and the thrust of the abdominal viscera is received in a normal manner by a normally contracting muscle, and not by a line of weakness, as must be the case in the methods I first described to-night. Even should the peritoneal line of suture carry away, there is still a strong muscle superimposed which will nearly always prevent any escape of intraperitoneal viscera.

To test the strength of this flap opening into the abdominal cavity, I have opened and closed an abdomen in this way in the cadaver, and have then cut in at another point and tried to force a finger through the line of closure, which demanded an amount of force, to accomplish which, I consider was far in excess of any pressure that the contents of the abdomen could exert at any one given point.

I trust I have not trespassed too much on your time and good nature by possibly going too much into detail and at times, I fear, repeating myself. If, however, I have said anything that may in the future prove of any assistance to you in your work, or if by reading this paper some criticisms from those present may give any or all good material for thought, and so add to our mutual benefit and the value of the work we do, then I feel I am more than repaid for any little effort of mine.

(Read before the West Australian Branch of the
British Medical Association)

A special vote of thanks has been accorded to Colonel Burns by the N.S.W. State Children's Relief Board for his munificent gift of five acres of land at Pennant Hills for the purpose of the cottage homes for invalid State Children. The board expressed its warm appreciation of the public spirit displayed by Colonel Burns in his cordial co-operation in the effort to ameliorate the condition of the afflicted waifs and strays of the community.

A CASE OF PERIODIC FEVER, WITH MARKED LYMPHOCYTOSIS.

By Sinclair Gillies, M.D. (Lond.), and Professor
D. A. Welsh, M.A., M.D. (Edin.).

G.S.H., aged 56, consulted me first in January, 1906, for attacks of periodic fever. He gave the following history:—He is employed in the postal service, and has lived all his life in New South Wales, except for a trip to China 30 years ago. Beyond the present illness he has been perfectly healthy. Five years before seeing me he had an attack of "influenza." From that time for three years the attack recurred every six months. Two years before seeing me the frequency of the attacks increased to every three to four weeks, and six months later, that is a little more than three years ago, they began to recur regularly at intervals of 19 to 21 days, and have done so regularly since.

The attacks vary slightly in severity, but conform closely to the following type. They are ushered in with stiffness of the limbs, flatulence and belching of wind, followed in 24 hours by fever, flushing of the face and severe pain in the back. Sometimes there is some nasopharyngeal catarrh present, and occasionally a tendency to vomit. There is rarely any headache. The fever lasts three days, rising to about 103°, where it either remains throughout or is characterised by morning remissions. With defervescence a rash consisting in rather faint bluish-red erythematous patches appears on the front of the thighs and on the lower part of the abdomen. Sometimes slight nocturnal delirium is present. Constipation is marked throughout the attack. The patient becomes sallow before the attack and distinctly anæmic after it. He has seen many doctors and heard many opinions.

When first seen his colour was good and nutrition fair; his heart showed signs of hypertrophy, the apex being in the sixth space in the nipple line; there was some doubtful friction at his right base behind, and the liver could be felt just below the costal margin. Beyond this nothing abnormal was found—the blood was not examined. Further examination was not possible, as I was leaving town, but he was able to name a date about six weeks later, when an attack would be due, and came back on that date (13-3-06). Examination showed nothing more than on the first attack, excepting some doubtful pus in his left nostril. Transillumination showed nothing in the sinuses; his urine and rectum

were normal. Feeling that intermittent pus formation somewhere or other was the most likely explanation of the condition, I examined his blood and found the following condition:—Red cells, 4,050,000; Hb., 100 per cent. (Talquist scale); white cells, 53,000, made up of polymorphonuclear 25.4 per cent., mononuclear—small 73.6 per cent., large 1 per cent., eosinophiles 0.3 per cent. The blood thus showed a marked leucocytosis made up mainly of lymphocytes.

His temperature being 99, and the attack due, I sent him into hospital, where his temperature rose in the afternoon to 103°, and he had a three days' fever of the character described above, followed on the fourth day by defervescence and the patchy erythematous rash, which faded next day, leaving a purplish stain. During, and for some days after, the attack the urine and motions were carefully watched, but showed nothing abnormal. Microscopic examination of the urine and faeces showed no trace of pus parasites or ova. At no time was there enlargement of glands or spleen. From time to time doubtful friction was heard at the right base.

The white count during the three days of fever was 68,000, 67,000, next day 60,000, three days later 41,000, after which it varied from 40,000 to 50,000. Professor Welsh saw the case with me, and examined the blood on the last day of this attack. A week after the attack the red cells had fallen to 3,293,000, but a week later he looked well and florid; red cells were 5,200,000, Hb. 95 per cent., leucocytes 43,000.

While in hospital it was noted that there were numerous freckles on his body and staining in the flexures at his elbows, a condition that he said had always been present. It was also noted that at night he could not lie comfortably on his side with one knee resting on the other, but required a pillow between them, as they were tender, a condition which had been present for some time and still persists. There was no tenderness on percussing the bones.

The next attack occurred exactly 21 days later, and in this attack Professor Welsh made counts of his blood while Dr. Chapman estimated the purin content of his urine with a view to correlating the variation in leucocytosis with the purin excretion.

The patient then left for the country, where he took large quantities of arsenic, reaching m. xii. three times a day, without appreciably affecting the attacks. Quinine also proved useless.

In the following July two small subcuticular nodules appeared on the side of his neck and one over his left eleventh rib, disappearing in a week or two. In February last he had slight mastitis of his left breast, which subsided. At this time his leucocytes numbered 30,000, of which 84 per cent. were small mononuclear, 1.4 per cent. large, 2 per cent. hyaline, and only 15.5 per cent. polymorphs.

His attacks of fever have continued regularly, leaving him weak after they have passed, as he usually works through them. Lately he has had what was apparently an ordinary attack of influenza, complicating the regular feverish attacks. The freckling and pigmentation have increased, probably due to the arsenic he has taken, otherwise his condition is little altered from what it was when first seen 21 months ago.

Professor Welsh has made further examinations of his blood, and also attempts to grow cultures from it before and during the attacks, the results of which he will put before you.

I have brought the case before you to-night, as I want help both from the point of view of diagnosis and treatment. As far as my knowledge goes the case is unique. We have a man presenting for nearly seven years periodic attacks of fever, the fever for three years past occurring regularly at three weeks' intervals, lasting three days, and being followed by a patchy erythematous rash. With this we have the blood changes characteristic of lymphatic leukaemia.

Intermittent pus formation is negated, not only by the absence of discoverable focus, but by the nature of the leucocytosis. Lymphatic leukaemia is not to my mind a satisfactory solution, as I know nothing of a chronic lymphatic leukaemia, without glandular enlargement, presenting periodic attacks of fever of the nature described above. The periodicity of the attacks, the recurrence every three weeks of a fever lasting three days and followed by an erythema, suggests the possibility of the regular liberation of a toxin as part of the life cycle of a parasite. Unfortunately for this theory, none of the known parasites produce an actual lymphocytosis, though a relative lymphocytosis may occur. There is, therefore, nothing in the result of our blood examination or from analogy to support this tempting hypothesis.

At present we are forced to leave the case in the unsatisfactory position of "a case of periodic fever with marked lymphocytosis."

Blood Examinations by Professor Welsh.

In order that the changes noted in the blood may be presented in a more coherent form, the examinations made by Dr. Gillies have been incorporated in the accompanying tabulated summary, together with one complete blood examination and three differential counts undertaken by Dr. Barling, whose assistance we desire very cordially to acknowledge. Advantage was also taken of these conjoint results in the preparation of the temperature and blood charts, in which are displayed the relations of (a) the total number of leucocytes, (b) the lymphocytes, and (c) the neutrophils to the temperature changes.

blood. In both these attacks the leucocyte increase was considerable, in the former exceeding 60,000, in the latter reaching 50,000 per cmm. In both attacks a marked leucocyte increase accompanied the onset of fever, and a marked decrease accompanied or closely followed, defervescence. In the apyretic period succeeding each attack the number of leucocytes did not, however, return to normal. After the former attack the minimum leucocytosis (noted on 22nd March) was 35,000; after the latter attack the minimum (noted on April 10th) was 32,000; and on none of the occasions on which the blood was examined for over a year and a-half did the number of

TABULATED SUMMARY OF BLOOD EXAMINATIONS.

Date.	Hour.	Temperature °F.	Total Leucocytes per cmm.	PERCENTAGES.		NUMBERS PER CMM.	
				Neutrophiles.	Lymphocytes.	Neutrophiles.	Lymphocytes.
1906.							
13 Mar.	10 a.m.	99°	53,000	25%	73%	13,000	39,000
14 Mar.	10 a.m.	101·4°	68,000	25%	73%	17,000	50,000
15 Mar.	10 a.m.	100°	67,000	—	—	—	—
16 Mar.	9 a.m.	99·4°	60,000	22%	78%	14,500	45,000
19 Mar.	1 p.m.	no fever	41,000	—	—	—	—
22 Mar.	10 a.m.	no fever	35,000	15%	81%	5,200	28,000
24 Mar.	1 p.m.	no fever	40,800	—	—	—	—
27 Mar.	10 a.m.	no fever	42,000	—	—	—	—
30 Mar.	1 p.m.	no fever	52,000	—	—	—	—
1 April	11 a.m.	no fever	43,000	—	—	—	—
2 April	9 a.m.	no fever	42,000	17%	81%	7,000	34,000
5 April	10 a.m.	101°	44,000	35%	65%	15,400	28,600
6 April	noon	102·2°	50,000	22%	75%	11,000	37,000
7 April	11 p.m.	100·2°	50,000	22%	73%	11,000	36,000
9 April	10 a.m.	no fever	38,000	22%	73%	8,000	28,000
10 April	10 a.m.	no fever	32,000	15%	82%	4,800	26,000
17 April	1 p.m.	no fever	39,000	—	—	—	—
1 June	1 p.m.	no fever	42,000	—	—	—	—
7 July	1 p.m.	no fever	35,000	—	—	—	—
1907							
12 Feb.	1 p.m.	no fever	30,000	15·5%	84%	4,600	25,000
23 Sept.	10 a.m.	99°	32,400	22%	76%	7,000	25,000
24 Sept.	11 a.m.	100°	30,500	20%	76%	6,000	23,000
25 Oct.	11 a.m.	no fever	30,400	16%	80%	4,900	24,000

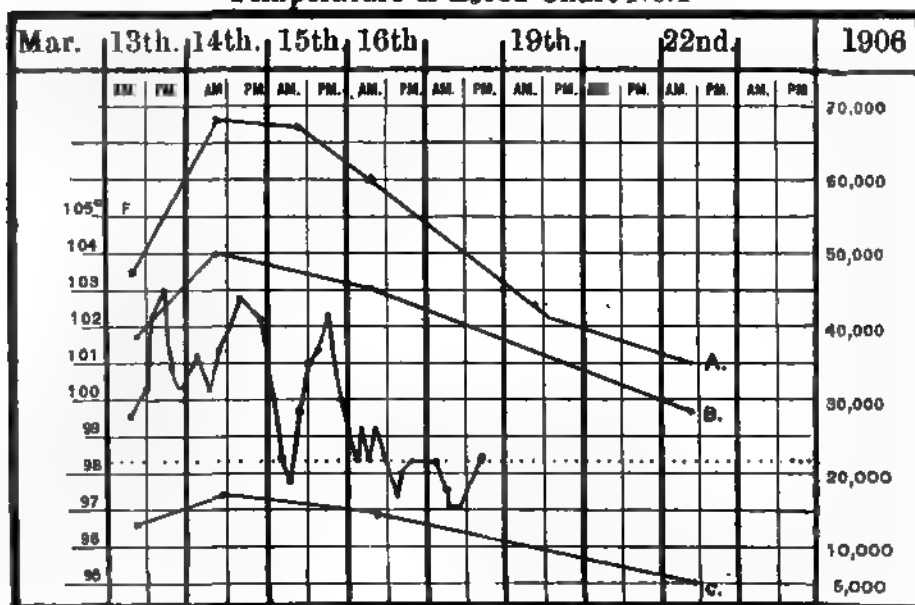
Attention may be directed to the character of the fever as revealed by these charts and to the remarkable similarity in detail shown by the temperature curves in the only two attacks during which the patient was in hospital and his temperature regularly noted.

Relation of the total number of leucocytes to the periodic temperature changes.—Reference to the tabulated summary and to the temperature and blood charts will show that, when the patient first came under our observation (in March and April, 1906) the periodic febrile attacks were associated with a correspondingly periodic increase in the number of leucocytes per cubic millimetre of peripheral

leucocytes fall below 30,000 per cmm. It is noteworthy that during the last febrile attack that came under our observation (on 23rd and 24th September, 1907), the marked relative increase in the number of leucocytes, so characteristic of the earlier attacks, was no longer apparent, but both the febrile and the non-febrile leucocytoses were little over 30,000, the numbers, therefore, remaining practically constant at a figure about that of the minimum non-febrile leucocytosis of a year and a-half before.

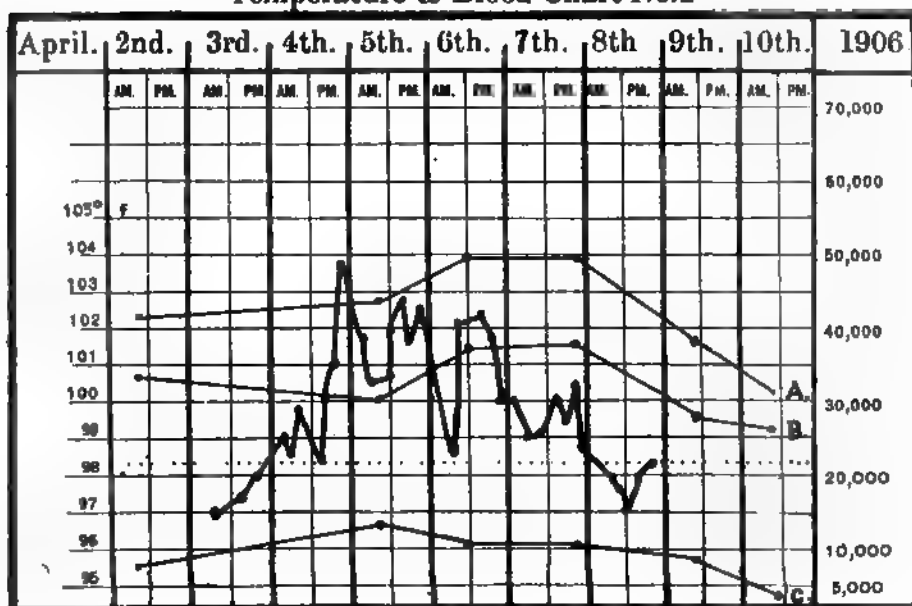
Relation of the neutrophils and of the lymphocytes to the periodic temperature changes.—Further reference to the summary and to the charts will show that, when the various forms

Temperature & Blood Chart No.1



A—Total Leucocytes; B—Lymphocytes; C—Neutrophils per cmm.

Temperature & Blood Chart No.2



A—Total Leucocytes; B—Lymphocytes; C—Neutrophils per cmm.

of leucocyte are differentiated, the main increase in number, both during the fevers and in the apyretic intervals, is due to an increase of lymphocytes. Each differential estimation is based on a review of not less than 500 leucocytes, and occasionally 1000 were examined. The maximum lymphocytosis was obtained during the fever on March 14th, 1906, and amounted to 50,000 per cmm. If the average number of lymphocytes per cmm. of blood in a healthy man be taken as not exceeding 2500, the above maximum would represent twenty-fold increase. Similarly, the maximum lymphocytosis obtained during the succeeding attack on April 6th was 37,000 per cmm., equivalent to a fifteen-fold increase. The minimum lymphocytosis of the non-febrile intervals throughout 1906 and the febrile and non-febrile lymphocytosis of September and October, 1907, all approximated to 25,000 per cmm., or a ten-fold increase of lymphocytes.

The behaviour of the neutrophiles was in marked contrast to that of the lymphocytes. The average number of neutrophiles per cmm. of blood in a healthy man may be taken as about 5000. Hence, during the fevers observed in March and April, 1906, and especially towards the commencement of each attack, there was an increase of neutrophiles, not, however, much exceeding three times the normal average. But, on every other occasion on which a leucocyte differentiation was made (whether in the non-febrile intervals of March 22nd, April 2nd; 9th, and 10th, 1906, February 12th and October 25th, 1907, or in the febrile attack of September 23rd and 24th, 1907), the number of neutrophiles did not exceed, or did not much exceed, the average in health; whereas, as we have noted, the lymphocytes continued to exhibit at least a ten-fold increase. It would appear, therefore, that the neutrophile increase was relatively slight and only transient, being induced particularly at the commencement of the earlier febrile attacks observed by us, and subsiding as these attacks passed off; whereas the lymphocyte increase was relatively marked and persistent, being, however, considerably aggravated during these earlier febrile attacks.

Lymphocytes and other non-granular leucocytes.—Further differential examination of the lymphocytes showed that the great majority were of small or medium size, and that only a small proportion could be described as large lymphocytes. Moreover, a considerable proportion (usually about a tenth

of the lymphocytes counted) were unstable and were crushed or expanded on making the films. This was particularly noticeable in the earlier febrile attacks observed by us, when the proportion of crushed and expanded lymphocytes in film preparations might be one-seventh of the whole lymphocyte count. Thus, on March 16th, 1906, when the lymphocytes aggregated 45,000 per cmm., it was noted that of these 24,000 were small, 12,000 were medium, and 2400 were large, while the remaining 6600 were so distorted in the films as to be recognisable merely as expanded lymphocytes.

Large mononuclear leucocytes, as distinguished from lymphocytes proper, were only scantily represented. On April 7th, 1906, and on September 24th, 1907—both febrile periods—the large mononuclears formed 3 per cent. of the total leucocytes counted. On other occasions, febrile or non-febrile, they rarely exceeded 2 per cent. of the total leucocytes.

Neutrophiles and other granular leucocytes.—In regard to neutrophiles no special observation was made beyond the fact that the selective affinity of the granulations for eosin was not noticeably increased during the neutrophile leucocytosis of the earlier febrile attacks. In regard to eosinophiles, a slight but variable increase, having no obvious relation to the temperature changes, was occasionally noted. They never exceeded 2 per cent. of the total leucocytes, and were more frequently under 1 per cent., though never wholly absent. In regard to basophiles, it was observed that in about two-thirds of the differential examinations one or two or three basophiles were found in each 500 leucocytes reviewed, in the remaining one-third no basophiles appeared among the 500 leucocytes counted. It is noteworthy that no granular myelocytes were at any time observed.

Red blood cells.—In addition to the observations recorded by Dr. Gillies, few determinations of the red cells or of the hæmoglobin were made, but it is significant of the absence of any lasting anæmia that on October 25th, 1907, the red cells numbered 4,900,000 per cmm., with 75 per cent. of hæmoglobin, estimated by Gowers's method. Nucleated red cells were at all times conspicuous by their absence.

Absence of recognisable hæmatozoa or other blood parasites.—No suggestion of the presence of any blood parasite, intra-cellular or extra-cellular, was ever obtained from any of the numerous films examined. During the

febrile attacks of April, 1906, and of September, 1907, special efforts were made to investigate this point. For example, both on April 6th and 7th, blood was collected at 11 p.m., and examined fresh at the bedside and subsequently in fixed and stained films. On April 9th films were prepared and fixed at 2 a.m. for subsequent examination. The results were invariably negative. Both in April and in September cultures of blood on agar and in bouillon remained sterile for more than a week, although continuously incubated at the body temperature. In September, both on the 23rd and on the 24th, blood was collected in sterile citrated salt-solution, kept at the room temperature and examined at intervals for some considerable time, but nothing suggesting a trypanosome or other parasite was observed.

Lymphocytosis v. Lymphocythæmia.—An abnormal increase of leucocytes in the blood may represent either a leucocytosis or a leucocythæmia. In the former case it is an expression of the reaction of the organism to some bacterial infection, parasitic invasion, or toxic absorption, and indicates an orderly and purposeful cell proliferation, determined by definite chemiotactic influences. In the latter case the cell-proliferation is disordered and apparently purposeless, suggesting the aberrant and independent proliferation of tumour-growth, and the leucocyte increase is much greater. Among the granular leucocytes (neutrophiles, eosinophiles, basophiles) a leucocytosis may be distinguished from a leucocythæmia (myelocythæmia) by the fact that in the former the increase is, with few exceptions, composed of mature, polymorphonuclear leucocytes (either neutrophile or eosinophile or basophile); whereas in the latter the increase is largely due to immature forms of these leucocytes and their precursors, the corresponding granular myelocytes. Among the non-granular leucocytes (lymphocytes, etc.), however, a leucocytosis (lymphocytosis) is not necessarily distinguishable from a leucocythæmia (lymphocythæmia) by any structural feature of the proliferating cells, since the lymphocytes of a lymphocytosis may be indistinguishable from those of a lymphocythæmia. Hence the distinction must be based on other considerations. One of the most important and most generally applicable of these considerations is that in lymphocytosis the total number of leucocytes is seldom much, if at all, increased, but the neutrophiles are usually diminished both absolutely and relatively, while there is a corre-

sponding increase either of the true lymphocytes (as in typhoid, tubercle, etc.) or of the large mononuclear leucocytes (as in malaria, etc.); whereas in lymphocythæmia the leucocytes as a whole are markedly increased because of the overwhelming proliferation of lymphocytes, small in chronic or large in acute cases.

It is impossible to ignore the fact that an increase of lymphocytes so marked and so persistent as that in the case under discussion is not easily explicable apart from lymphocythæmia. When the neutrophile leucocytosis, induced by each febrile attack, has subsided, the lymphocytes form at least 80 per cent. of the leucocytes present, and never number much less than 25,000 per cmm. The probable long duration, the absence of glandular or of splenic enlargement, the absence of progressive anæmia and of nucleated red cells, do not contra-indicate this hypothesis. Indeed, I hope to bring before this meeting at an early date observations to show that none of these circumstances are adequate to exclude a diagnosis of lymphocythæmia. Further, more or less periodic increments of the lymphocytes with febrile exacerbations are not unknown in this condition. What is most peculiar and most difficult to explain in this case is the strictness of this periodicity and the long period over which this strictness may be traced. But on any hypothesis this strict periodicity is hard to "explain." As Dr. Gillies has noted, it is undoubtedly best accounted for on the assumption of some parasitic invasion, which in turn fails to account for the marked absolute increase of true lymphocytes.

On the whole I am inclined to regard the case as one of chronic lymphocythæmia complicated by peculiar periodic febrile attacks, whose nature and relation to the lymphocyte increase I am unable to define. The fact that each febrile attack is accompanied by a neutrophile leucocytosis would suggest that something more than a periodic liberation of lymphocytes into the circulation was the cause of the pyrexia. It suggests rather that some periodically fulminating condition is superimposed upon the chronic lymphocythæmia, but the nature of this condition is not apparent from our observations. Even assuming, as there are no grounds for doing, that there may be overgrowths of lymphoid tissue in relation to the alimentary tract, and suggesting that the febrile attacks may be due to some recurrent form of gastro-intestinal crisis, I have to admit that the most

puzzling feature of the case—the remarkable periodicity of these attacks—receives no explanation whatever.

Purin Estimations by Dr. Chapman.

We are indebted to Dr. Chapman for the following account of the purin estimations kindly undertaken by him during the febrile attack of April, 1906:—

The patient was in a private hospital, where the total quantity of urine voided in 24 hours was carefully collected. A purin free diet was given to exclude exogenous purin N. Total nitrogen was estimated by Kjeldahl's method and purin N. by Walker Hall's purinometer checked by estimations by Camerer's method. A 24 hours' sample contained the urine passed in the day plus that excreted during the subsequent night. Daily estimations were made from March 30th until April 10th. This period included the febrile attack of April 4th and following days. The purin N. was 0.12 gm. daily until April 3rd, when it was 0.17 gm. On April 4th it was 0.20 g.m., and on April 5th 0.13 gm. On the subsequent days the excretion varied around 0.14 gm. The total nitrogen was 15 gm. daily until April 3rd, when it was 17 gm. The amount increased to 21 gm. on April 7th, and the quantity remained stationary at 21 gm. until the end of the investigation. It would be observed that the increase in endogenous purin preceded the onset of the fever. It was a matter of regret that no leucocytic counts had been made on the two days when the purin output was high. The figures for the total nitrogen showed that the patient's appetite was not much impaired.

(Read before the New South Wales Branch of the British Medical Association.)

A RECENT DEVELOPMENT OF THE RADICAL MASTOID OPERATION: WITH REMARKS ON PROPHYLAXIS.

By J. Lockhart Gibson, M.D. (Edin.), M.R.C.S. (Eng.), Brisbane.

I AM anxious this evening to interest members in affections of the middle ear liable to lead to a necessity for some variety of the radical mastoid operation, rather than to write a special otological paper. So much can be done in the way of prophylaxis, and so much of this prophylaxis depends upon the initiative of the general medical attendant, that if the necessity for radical mastoid work is to become less in the future, it will be a result of the early recognition and treatment of conditions likely to induce a need for it.

I believe that the radical mastoid operation will be, and should be, more frequently performed in the future than in the past; although I at the same time hope that the number of cases actually requiring it will be lessened. It will be readily admitted that a great majority of cases which should be subjected to this operation are left in their danger, in their discomfort, and with hearing which might be much improved.

The immediate object of this paper is to point out that Charles Heath has advanced the operation a distinct and important step. He has, in other words, very much increased in *selected cases* the likelihood of benefit to hearing. I speak of what he calls "The cure of chronic suppuration of the middle ear, without removal of the ossicles, or drum membrane or loss of hearing."

Some three years ago Charles Heath rather irritated otologists who had been in the habit of doing radical mastoids by claiming that a comparatively slight modification of the complete operation as performed by Ballance and others produced better hearing results than they secured. He failed, I think, to support the contention that he obtained better hearing, although he certainly obtained as good. It is, however, to an important development of this operation that I wish to draw attention. A few words on prophylaxis must come first.

The first step in prophylaxis is the removal of handicaps in the nose or nasopharynx. Although the possessor of a perfectly healthy nose and nasopharynx may acquire an attack of acute middle ear catarrh owing to an attack of a specific fever or to bathing in polluted water, a handicap in these passages greatly increases his liability to acute middle ear disease. Hypertrophies in the nose and nasopharynx, including the fossæ of Rosenmüller, which call attention to their presence by interfering with breathing, or more especially by altering the appearance, position and health of the drum membranes, should be removed.

Removal of adenoids has been called the most important operation in childhood. I agree with this opinion myself if it be performed under chloroform anæsthesia. A very large experience of this operation has led me to consider chloroform as safe an anæsthetic for it as for any operation, and to believe that a child should have the benefit of chloroform as an anæsthetic, so that the operation may be performed thoroughly and

carefully and without unnecessary hurry. I myself refuse to operate on children of an age to require a general anæsthetic except under chloroform anæsthesia. But there is only one position in which I would have the child placed during operation—the position of the “supported hanging head.” It is a desire to do the operation in record time, coupled with a faulty position for operating, which have combined to produce a scare of chloroform. A suitable anæsthetic for a cleft palate operation is surely a suitable one for any operation on the nasopharynx.

A further most important step in prophylaxis consists in giving prompt attention to cases of acute middle ear catarrh. Acute catarrh, whether it be serous or purulent, if promptly treated is likely to result satisfactorily, both as regards hearing and future safety. Acute catarrh left to itself is apt to lead to conditions needing radical mastoid interference. A case of acute catarrh in which the drum membrane is, if necessary, punctured early and followed up by regular Politzerisation, is unlikely to leave the ears and hearing appreciably less well than they were prior to the attack. Even a case in which the drum membrane ruptures for itself—especially if it has done so early in the attack—if followed up by regular Politzerisation is apt to end satisfactorily. I find it impossible to conceive that the middle ear can be distended with exudation as a result of acute catarrh without the mastoid antrum being implicated; but in my opinion the mastoid antrum recovers as thoroughly as the middle ear in a majority of cases treated early and thoroughly. We have to remember that it is situated at a higher level and nearer the surface than the middle ear, and so long as it is not abnormally enlarged it empties itself completely into the middle ear unless that cavity is itself occupied by exudation. It is in those cases where treatment is delayed, where the middle ear and antrum are occupied by exudation for some time before relief is given, that the lining of the antrum is apt to become affected and its cavity enlarged in such a way that it acts as a permanent or frequently recurring source of infection to the middle ear. We can assume, indeed, that in all cases of chronic purulent catarrh of the middle ear which do not yield to reasonable treatment, the mastoid antrum is diseased and a reservoir of infection for the middle ear, and that most cases of frequently recurring purulent catarrh, without a permanent perforation of the drum

membrane, are being re-infected from the antrum, or at any rate have each attack prolonged by an associated inflammatory state of the walls of an enlarged and diseased antrum. Given a case of chronic or frequently recurring purulent catarrh of the middle ear, which does not yield to treatment of the nose and nasopharynx and to a reasonable amount of attention to the ear itself, what should be done? Until Heath's paper we had as alternatives—(1) Removal of ossicles, necrosed or otherwise, with or without removal of remains of drum membrane and with or without curetting of the middle ear. This has rightly, I think, fallen into discredit as insufficient. (2) Opening of mastoid antrum without removing the posterior wall of the meatus. This means, if healing is made to occur from the depth upwards, an obliterated antrum after much trouble, and an unsightly scar behind the ear, and no increased size of the meatus to enable a better watch to be kept on the tympanum; or it means a permanent opening to the antrum behind the ear, which is not satisfactory, and difficult to achieve. (3) Of late years the operation, suggested first, I believe, by Zaufal, and followed up by others, and very thoroughly by Ballance, has been practised. It consists in making antrum, middle ear and enlarged meatus one cavity, with the mouth of the meatus as its opening. In the case of this operation as done by Ballance, it consists also in lining this cavity with Tiersch's grafts, chiefly for the purpose of hastening healing, which it certainly does. Since Ballance introduced his operation I have adopted it in cases requiring a radical mastoid both in adults and children. It has given me much satisfaction and nothing but good results, both as regards permanent safety to patients and permanent improvement in hearing. Until I adopted this operation I had become dissatisfied with mastoid work in children. Still, it involves the removal of any remains of drum membrane and of all the ossicles except the stapes or its footplate, and it leaves the patient with only his two fenestræ to act as receivers and conductors of sound to his internal ear. This is, of course, all we wish to leave him in a case of advanced disease of the middle ear, with necrosis of its walls and of its ossicles, and also all we wish to leave him if without necrosis the remains of the drum membrane and ossicles are bunched up and an actual hindrance to the conduction of sound to the oval window. But there are some cases in which we have reason to believe

that there is no actual necrosis of ossicles or of tympanic walls—where the membrane and ossicles are in fairly natural position, and where there is probably no incurable state of the middle ear, provided the antrum can be made permanently healthy and open to inspection. In such, one hesitated to advise a radical mastoid on account of the risk of making hearing, sometimes still good, less well than before the operation. It is for these cases that we have, I think, found an alternative in Heath's latest procedure. I shall not refer to the first operation advised by him, because it really only differed in technique from Ballance's and other complete mastoid operations, and in his objection to the adoption of Tiersch's grafts. I have, however, in performing his latest operation, in which the technique is largely identical, come to appreciate much of it. I shall certainly adopt it in future, in at least some cases, in preference to Ballance's more extensive procedure.

I hope next evening to exhibit a selected specimen of Ballance's operation and a double case of Heath's latest operation, that you may compare their appearance and their hearing. There is no disfigurement in either.

I have come to believe that in the complete mastoid operation, as performed by Ballance, we may expect the patient to hear distinct speech at eight yards, provided, of course, that the oval window and the labyrinth are in a healthy state. But in a successful radical mastoid with preservation of the drum membrane and ossicles we may expect any up to practically natural hearing.

For a radical mastoid operation without removal of the drum membrane and ossicles, cases with necrosed ossicles or necrosed walls of tympanum are not, of course, suitable. When an ear gets into such a state we operate to remove a source of danger to the patient's life, and the amount of hearing obtained, especially if only one ear be affected, is comparatively unimportant. Still, if the oval fenestra and the labyrinth are healthy we may expect, as I have said, distinct speech at eight yards.

Where, however, we can be sure that the ossicles are not necrosed and that they are not bunched up with the remains of the membrane in such a way as to be obstructive to the conduction of sound, we may even, if granulations exist in the middle ear, endeavour, by doing a radical mastoid with preservation of the drum membrane and ossicles, as suggested by Heath, to preserve

or obtain better hearing than we could expect after the more complete operation. Heath's paper was published in the *Lancet* of August 11th, 1906, and described ten cases; some of them had suffered from serious disease of the middle ear for years and from great reduction of hearing; all had permanent perforations, some granulations in the middle ear. He obtained cessation of discharge, closure in most cases of the perforation, and remarkably good hearing.

The case I am to show you next meeting has been an object of interest and of thought to me for many years, and I decided to give it the chance of being cured by this operation, rather than do a complete mastoid, which would have resulted in useful hearing, but still in hearing less than that she had retained through all her troubles.

Z.K. was brought to me when two years of age, with a history of never having had a quiet night—constant tossing about of the head and restlessness at night, and peevishness during the day. I found each drum membrane thick and moderately distended. Punctured each, and obtained sero-pus or muco-pus. I removed a large mass of tough adenoids, which must have been present at least from birth. Subsequently her tonsils and a nasal abnormality were dealt with. The child, however, continued to be the subject of recurrent attacks of purulent catarrh of one or both middle ears. Sometimes the attacks were accompanied by pain, occasionally only accompanied by deafness, and sometimes recognised by temperature only and no pain, and sometimes by headache. The distended posterior segment of the drum membrane of each ear has had to be frequently punctured, and occasionally repunctured during an attack. The tendency to heal up has been very marked, and healing has never failed to result. Many of the attacks appear to have occurred during influenza epidemics. I long since ceased to keep a tally of the number of times each drum membrane has had to be punctured, but her mother has done so, and she tells me that the right has been punctured 112 times, the left 86 times. The child is now 13 years old. For years I have had in my mind the question of radical interference, especially since the complete mastoid operation has given me such good results. Two things have deterred me: first, the fact that her hearing throughout has kept excellent, and that a complete mastoid, with removal of drum membrane and ossicles, while leaving useful hearing,

viz., distinct speech at eight yards, would not have given her whispered speech at 16 yards, which she now possesses; and second, because there could be no advantage in operating on one ear and leaving the other unoperated upon. Once or twice, when eight months went past without an attack, I have hoped that they had come to an end, but even during that time I have been suspicious that some extra and unhealthy secretion has formed in the antra and middle ears and found exit by her very patent Eustachian tubes. For the past six months the attacks have been both more frequent and more prolonged, and something had to be done. I decided to do a radical mastoid operation without removing the drum membrane or ossicles or the bridge over the aditus, and to operate on the second ear as soon as possible after operating upon the first.

The operation is, as far as it goes, identical with that described by Heath in 1904, except that his probes for locating the antrum cannot be used, as the drum membrane is to be preserved. These probes are no doubt useful, but I think unnecessary, even when there is no drum membrane to preserve. His skin incision is in the angle of junction of the auricle with the head, and, as you will see next evening, leaves no disfigurement whatever. The antrum is exposed, its outer wall entirely removed, and the posterior bony wall of the meatus is also removed down to but not including the bridge over the aditus. In all Heath's cases permanent perforations existed. In a case such as mine the drum membrane if not perforated at the time is to be punctured before or during the operation. The middle ear is inflated through the aditus by means of a special canula, and then syringed through this canula with 1 to 40 carbolic acid or some other antiseptic. A flap of the posterior and part of the upper wall of the cartilaginous meatus, and if possible of the skin lining of the bony meatus, is formed and pushed backwards to cover the floor of the enlarged meato-antral canal, and it is retained in position by a stitch. The mouth of the meatus is enlarged to admit the first joint of an index finger, and a large $\frac{1}{2}$ -inch to $\frac{3}{4}$ -inch drainage tube is pushed through it into the large meato-antral cavity. The skin wound is then accurately stitched and a wet dressing and mackintosh applied. During the operation a mackintosh with an aperture for the auricle and skin immediately

surrounding it is wrapped round the head to obviate the necessity for shaving the head.

Heath uses gouge-chisels and hammer for opening the mastoid and for all the bone work. I have for many years—since, in fact, Macewen pointed out their advantages—used burrs for all the bone work. The largest is 11 millimetres. Burrs may be a little slower than chisel and hammer, but there is no jarring to the head, and even if sinus or middle fossa are unexpectedly exposed there is no danger and no harm done. I still use a strong dental engine for driving my burrs. A surgical engine or electro-motor would save time. I would not use chisel and hammer unless my burrs failed to act. Heath's chisels are excellent of their kind, as you may see. Heath, when dressing, daily inflates the middle ear through the aditus by means of his canula. I did this for the first day or two in each ear, but Politzerised in addition in the usual way, and afterwards merely Politzerised.

One ear was done on August 7th, and the other on August 21st. Each mastoid antrum was large and had indurated walls. The enlargement of the cavity in each had been downwards into the mastoid, and the aditus was a channel running from the higher part of the cavity into the middle ear. In other words, the aditus could only take the *overflow* into the middle ear when fluid existed in the antral cavity. In the case of the first ear, which was in process of discharging thick tenacious muco-pus at the date of operation, the antrum was found quite full of the same material, and the opinion that the antral cavity formed a reservoir for re-infecting the middle ear was confirmed. As fortune would have it, the other ear was in a quiescent state at the time of operation, and there was no purulent secretion in either middle ear or antrum, supporting the opinion that between attacks the antrum and middle ears were free from purulent secretion. There were no complications during convalescence, except that she had a slight attack of influenza between the first and second operation. Granulations in the antral cavity troubled more than when grafting is practised, but healing was very quick, really completed within four weeks.

Whether the result is to be a permanent cure one cannot say for many months yet, as, of course, the absence of the antrum as such does not prevent catarrhal attacks passing up to the middle ear from the nasopharynx.

The knowledge of this fact was one of my reasons for hesitating to operate as I have done instead of doing a "complete mastoid." The right ear, indeed, which was the second of the two to be operated upon, acquired such an attack during convalescence and before its perforation had closed, and while others in the house were suffering from the present influenza epidemic. It is still discharging a little thick muco-pus. The child is said to have the best hearing in a household of five persons, none of whom is thought to have any defect of hearing.

(Read before the Queensland Branch of the British Medical Association.)

THE RADICAL TREATMENT OF SLIDING HERNIA.

By Thomas Flaschi, M.D., Ch.D. (Pisa and Florence),
Hon. Surgeon Sydney Hospital, Sydney.

SLIDING hernia is not a new discovery. The older surgeons knew it. As far back as 1863 I find a description of it by Ranzi,¹ who named it *acystic* hernia, and recognised the sliding character of it by using the words "quasi sclrucciando," almost sliding. The French surgeons, impressed by this peculiarity of origin, called it *hernie par glissement*. Dr. Weir, of New York, translated this as *sliding hernia*, and by this term it has been generally known by English-speaking surgeons. Some of the German surgeons have named it *sacless hernia*.²

Sliding hernia can be both inguinal and femoral, but more commonly the former. It is the protrusion, through abdominal orifices, of some of those viscera which are incompletely covered by peritoneum, such as the cæcum, the pelvic colon, the bladder and the rectum. The hernia begins at first with that portion of these viscera covered by peritoneum, and so far it is a common hernia, but by degrees straining, coughing and the weight of the viscus already protruding, push and drag down that portion of this viscus not covered by peritoneum. This sliding down is favoured by the laxity of the sub-peritoneal cellular tissue, and by the absence of any structure attaching the peritoneum firmly to the underlying fasciæ, outside the umbilical and epigastric regions. Thus, when this condition becomes complete, we have a true visceral ptosis, analogous in character to prolapsus of the rectum, to movable kidney, to wandering spleen, etc.

There has been some confusion in the various writers on this subject, some having included in sliding hernia all hernia of the cæcum and of the pelvic colon. On the other hand others went to the opposite extreme, and with Bardeleben³ thought "that the cæcum is never placed outside the peritoneum in the way described, and that cæcal hernia always possesses a peritoneal sac." More recent and accurate observations, especially since operations for the radical cure of hernia have become common, show that there are undoubtedly cases of cæcal and sigmoid hernia, in which portion of the wall of the sac is formed by the intestine itself, absolutely destitute at the back of any peritoneal covering. The proportion of such true sliding hernia was found by Bull & Coley to be 8 on 12 cases of cæcal hernia.⁴ For this form of hernia only should the designation *sliding* be used.

Now what are the results of radical cure in cases of sliding hernia? Bull & Coley recognise the difficulty of such cases⁵ in the following words:—"In sliding hernia we have an entirely new problem, and not an easy one to solve. Instead of a sac, the contents of which can be entirely reduced and the neck of the sac closed high up, we have only a partial sac, the anterior portion consisting of the usual peritoneal layers, but the posterior portion made up of the cæcum itself, which had slid downward into the canal or scrotum. We may separate the cæcum from the tissues behind it, and force it upwards for a short distance, but having no neck of the sac to close, as in ordinary cases, it is far more difficult to prevent a relapse." In their very skilful hands there was one relapse on eight cases of sliding hernia operated by Bassini's method. This percentage of relapse is much greater than that obtained by the same surgeons in ordinary inguinal hernia treated by Bassini's method. Over a number of 1076 cases they had only six relapses—0.55 per cent.

So far statistics on this point are not sufficient, but my impression is that relapses in sliding hernia are more common than generally recognised. In my experience I have met with three relapses after radical cure of hernia in which I re-operated and found the condition of sliding hernia. Of these three cases one had been operated in the first instance by myself and the other two by other surgeons, and apparently the first operation had been done thoroughly; so that the re-

lapse was undoubtedly due to the vicious habit of sliding down incurred by that portion of intestine which formed the sliding hernia.

In my opinion the only possible way to make the radical cure of sliding hernia permanently successful is to anchor the intestine neighbouring the sliding hernia to the abdominal parietes, just as you anchor a floating kidney or a prolapsed rectum.

The analogy between prolapsus of the rectum and sliding hernia is so great that I thought colopexy, which, as described by Lenormant,⁶ has been so successful in the treatment of prolapsus recti, should be equally useful in sliding hernia, if combined with Bassini's operation.

Colopexy for *prolapsus recti* was first proposed by Jeannel and improved by Verneuil. As described by Lenormant, it consists in an incision 12 centimetres long, parallel to Poupart's ligament and about 3 to 4 centimetres above it. This cuts through all layers. The peritoneum is opened and a broad retractor is placed on the inner lip of the wound. The colon is seized and gradually drawn up until all prolapsus of the rectum disappears. An oblong piece of parietal peritoneum, 8 to 10 centimetres long and 4 to 5 centimetres wide, is dissected away from the abdominal walls close to the iliac fossa, and to the muscles and fasciæ of this denuded surface is the colon fixed by a continuous suture. The immediate results of this operation are excellent, as in 101 cases quoted by Lenormant there had only been one death, and this quite independently of the colopexy.

In applying colopexy to the treatment of sliding hernia, I propose a few modifications. First, as we operate generally hernia, and in patients with great endo-abdominal pressure and weak abdominal muscles, we should not expose our patient to the risk of a ventral hernia, and the McBurney's gridiron incision should be substituted for the incision through all layers. Lenormant objects to this as not giving sufficient room, but with good assistants, and by that I mean assistants who can help the operator by the intelligent use of retractors, such difficulty can be overcome. Secondly, the extent of peritoneal denudation of the iliac fossa can be reduced to one-half of that proposed by Lenormant, as the weight of intestine to be supported in sliding hernia is certainly much less than one-half that of a prolapsed rectum. By so doing Lenormant's objection to McBurney's operation will have less force. The object of the peritoneal de-

nudation is that by attaching the intestine to the muscular and fascial structures of the iliac fossa we obtain far stronger and firmer adhesions.

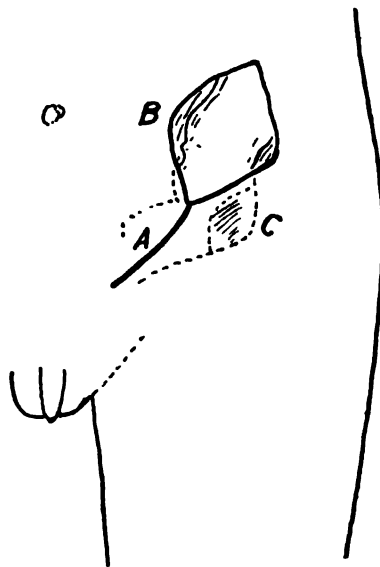


DIAGRAM OF OPERATION FOR SLIDING HERNIA.

- A.—Incision for Bassini's operation.
- B.—McBurney's incision opened out, showing colon at the bottom.
- C.—Lozenge-shaped area of peritoneal denudation, where the pelvic colon is attached to the muscles of parietes and of iliac fossa.

One of the reasons given by Lenormant for the very long strip of peritoneal denudation is to prevent possible further angulation of the intestine, but I think that can be obviated by carefully running a couple of interrupted sutures through the serous coat of the intestine and peritoneum as you close the latter. The incision for the colopexy can be separate from that for the Bassini operation, or better still continuous, as shown in the accompanying diagram.

I had the opportunity of carrying out these views of mine in a case that I operated at the Sydney Hospital on August 5th last. The patient was a cabman, 55 years old, and had been sent in by Dr. Crago, suffering from incarceration of a large irreducible inguinal hernia. The patient had been operated by me nine years before for a right inguinal hernia by Bassini's method, and that side had remained perfectly well ever since. Seven years ago he developed a left inguinal hernia, which had steadily increased, and caused him a good deal of annoyance. Purging relieved the incarceration, and after a

week's rest in hospital I operated him first by a Bassini's method. On opening the huge sac 18 inches of pelvic and descending colon protruded out. This was adherent in various places to the sac. The adhesions were carefully separated, and all bleeding points on the surface of the intestine were ligatured. I then carefully examined the relations of the sac to the intestine and found that for fully four inches of the posterior limb of this intestinal loop the sac was completely absent, so that to avoid stripping the intestine of its serous covering, I had to carefully cut off the sac from the intestine, where it was reflecting on it. The sac was then carefully formed into a neck and sutured, and the portion of sacless colon that had slid down was pushed back into the iliac fossa. The operation was continued by Bassini's method, and when completed I made a McBurney's incision in the left iliac region very similar to what is done on the right side for appendicitis. On drawing the colon up I soon identified the portion that had been found in the sac, owing to the ligatures that I had applied on the points where the adhesions had been divided. I then dissected a portion of the parietal peritoneum near the iliac fossa, leaving exposed a lozenge-shaped surface one and a-half inches long. Having carefully watched how much of the colon was to be drawn, so as to fix it in manner that no future hernia could possibly occur, I attached the outer surface of it to the fasciæ and muscles of the parietes by interrupted No. 1 chromicised catgut sutures. The abdominal walls were closed as usual. The patient made an uninterrupted recovery and has kept well since.

REFERENCES.—(1) Ranzi *Lezioni di Patologia Chirurgica*, vol. iii., page 414 (Firenze, 1863). (2) Bergman and Bruns, *System of Practical Surgery*, vol. iv., page 492 (Lea Bros., New York, 1904). (3) Fred. S. Dennis, *System of Surgery*, vol. iv., page 195 (Lea Bros., 1896). (4) Results of 1500 Operations for Radical Cure of Hernia, by W. T. Bull and W. B. Coley (*Medical Record*, March 18th, 1905). (5) Bull and Coley, *loc. cit.* (6) *Revue de Chirurgie* (Février, 1907, page 191).

(Read before the New South Wales Branch of the British Medical Association.)

Owing to a shortage of water at the Broadmeadows Consumptive Sanatorium in Victoria, the number of beds occupied has been reduced to 40 during the past fortnight, and only specially urgent cases were being admitted. Practically no water had entered the dam since the embankment was strengthened several months ago. The question of transporting water had been carefully considered, but such a course was believed to be impracticable. There was still five or six weeks' supply, and with the extensive and specially-drained catchment now available, a single heavy down-pour would yield a supply sufficient for several months. The capacity of the dam is now equal to more than a year's supply.

TEN CASES OF STOVAINE SPINAL ANALGESIA.

By C. S. Willis, M.B., M.R.C.S., D.P.H., etc., and D. Wallace, M.B., Ch.M., Senior Resident Medical Officer, Coast Hospital, N.S.W.

ONE of us having recently had an opportunity of witnessing Professor A. E. Barker inducing spinal analgesia by means of stovaine, at the University College Hospital, London, and being struck with the ease and, in his hands, safety of the procedure, we determined to try the method.

The following is an account of 10 cases operated on at the Coast Hospital, Little Bay, New South Wales.

We were rather unfortunate in having to work under difficulties. In the first place we were unable to procure a proper needle, and in the second place our earlier subjects were far from ideal for novices to start on. Taking these circumstances into consideration, we are of the opinion that the results were highly encouraging.

CASE I.—A woman *æt.* 50, of highly neurotic temperament. This woman had a growth over right patella, and although prevented for years from kneeling down, she refused to take a general anæsthetic for its removal. The patient was placed on her right side, with her knees drawn up to her chin, so as to arch outwards the lumbar spine as much as possible. The third lumbar space was then punctured in the middle line, and after about 9 c.c. of cerebro-spinal fluid had been allowed to escape, 5 centigrammes of stovaine were injected. She was then turned on her back, with head and neck well elevated and hips raised about three inches. In about one minute she felt some numbness in right foot, and this soon extended to left foot. In three or four minutes the anæsthesia was marked in right leg and thigh, and soon extended to the level of the umbilicus on the right side. The left leg, thigh, and abdomen were similarly affected about one minute later, and by this time there was complete loss of power in both legs. The operation was started about seven minutes after the stovaine injection, and was completed without the patient feeling any pain. About 10 minutes after the injection the analgesia had extended to its maximum height, viz., to a point about half way between the umbilicus and the ensiform cartilage. From this time there was marked relaxation of the abdominal muscles. About half way through the operation the

patient, unfortunately, caught a glimpse of the wound, and shortly afterwards complained of feeling faint, and her pulse got weak and caused some anxiety; but she soon recovered after a hypodermic injection of strychnine, and half an ounce of brandy by mouth.

Half an hour after the stovaine injection the analgesia was still present; one and a half hour after, sensation had returned over abdomen and thighs, and she was able to move her legs; in three hours the whole effect of the injection had passed off.

CASE II.—A man, *æ*t. 52, with an ischio-rectal abscess. This man was very deaf and gave us great trouble in getting him into the right position. The same procedure was adopted as in the former case, but we were unfortunate in finding a flaw in our needle (a new one) in the middle of the injection. We had intended to inject 4 centigrammes in this case, but owing to the above the patient probably only got about 3 centigrammes or less. In this patient, owing to the small dose, we did not get a loss of sensation in the thighs and abdomen, but only a numb feeling, and the cremasteric reflexes were never lost. In spite of this there was complete loss of sensation in the anal region and great relaxation of the sphincter ani, and the operation of evacuating, scraping and swabbing the abscess cavity was performed without the patient feeling anything. The only time he complained of any feeling was when the prostate and higher part of the rectum were being examined. The patient felt well all through, and the effects passed off completely within two hours.

CASE III.—A woman, *æ*t. 45, with extensive varicose veins of left leg and an ingrowing toenail on right great toe. Five centigrammes of stovaine were injected, and within ten minutes there was complete analgesia on both sides up to a point half way between the pubis and umbilicus. The operation on the veins was not completed until 70 minutes after the injection, and then her great toenail was removed without the patient feeling anything. This patient felt well all through, and the effects of the injection passed off completely within three hours.

CASE IV.—A man, *æ*t. 25, and Case V, a man *æ*t. 49, were both operated on for hæmorrhoids, and each received 4 centigrammes of stovaine. In both cases there was marked relaxation of the sphincter ani, and the operations were completed without the patients feeling pain or other uncomfort-

able effects. Effects of injection passed off in a little over two hours.

CASE VI.—A man, *æ*t. 49, with varicose veins of right leg and a left varicocele. Five centigrammes of stovaine were injected, and about eight minutes afterwards analgesia was complete up to nearly two inches above Poupart's ligament on both sides. About 15 minutes after the injection we were surprised to find the analgesia more marked on the left side, because the injection had been made with the patient on his right side. On looking for a reason, we found that, for the convenience of the operator, the patient had been pushed towards the left side of the table, the left leg had dropped over edge a little, and left side of pelvis was lying lower than right, and this had evidently caused the stovaine to gravitate to that side. The operation on the veins of the leg was completed without the patient feeling anything, but he complained of a slight amount of pain when the constituents of the cord were being separated, about 25 minutes after injection. The patient felt well all through, and the effects of the stovaine passed off within two and a half hours.

CASE VII.—A man, *æ*t. 48, on whom a perineal cystotomy was performed. Only 4 centigrammes of stovaine were injected in this case, as it was thought by the injector to be a case of piles. In spite of the small amount of stovaine injected the patient did not feel any discomfort during the operation, with the exception of a sensation of heat in the epigastrium when the bladder was being washed out with hot solution.

CASE VIII.—A man, *æ*t. 45, operated on for hæmorrhoids. This patient had only been out of bed four days after an attack of pneumonia that had begun 13 days before. The third space was punctured with difficulty, and the cerebro-spinal fluid came out very slowly, so it was decided to try the second space. No difficulty was encountered here, and the fluid flowed out freely. 5.5 centigrammes of stovaine were injected and the pelvis raised somewhat higher than in the previous cases. In three minutes analgesia had reached Poupart's ligament on both sides and the pelvis was then lowered. In ten minutes analgesia had reached, on both sides, to within half an inch of the nipple line. He now complained of slight difficulty of breathing, and was unable to blow his nose. It was found that the slight difficulty he had was in expiration, owing probably to the loss

of power of the abdominal muscles. This trouble soon passed away, and the operation was completed without any other inconvenience to the patient. The effects of the injection passed off in about three hours.

CASE IX.—A man, *æ*t. 38, with hæmorrhoids, and Case X, a man, *æ*t. 35, with fistula in ano. 4-5 centigrammes of stovaine were injected in each case, and the operations were performed without the patients feeling any pain. Both patients felt perfectly well during the operations, and the analgesia passed off within two and a-half hours.

Remarks.—The region of the injection having been previously prepared as for an operation, was, just before the injection, well washed with spirit, and finally with warm sterilised water. The syringe (a metal one) and needle were boiled in plain water, so that the stovaine should not be injured by soda, etc. The stovaine solution used was the same as that recommended by Professor Barker in the *British Medical Journal* of March 23rd, 1907, viz., stovaine 10 per cent., glucose 5 per cent., distilled water 85 per cent., and was prepared, sterilised, and put up in sealed tubes for us in the laboratory of the Department of Public Health, Sydney.

One problem that faced us was how to deliver accurately the small quantity of solution used. In the earlier cases we adopted the following expedient:—After allowing the requisite amount of cerebro-spinal fluid to escape from the needle, the syringe, charged with the stovaine solution, was then fixed to the needle, and as much as possible pushed into the canal. The syringe was then removed and charged with a small quantity of the spinal fluid previously withdrawn, and which had been collected in a sterilised measure glass, and then reattached to needle, and the piston pressed home, thus driving the small quantity of stovaine solution in needle into the canal by means of the patient's own spinal fluid. In the later cases, after as much as possible of the stovaine solution had been injected from the syringe, a little cerebro-spinal fluid from the spinal sac was slowly drawn up into syringe and allowed to mix with remainder of stovaine in syringe and reinjected into sac. This procedure was repeated once or twice.

In the first two cases 9 c.c. of cerebro-spinal fluid were allowed to flow out of the puncturing needle before injecting the stovaine solution. In the other cases only 6 c.c. were allowed to flow out,

The temporary faintness felt by the first case (the neurotic female) we believe to have been due to the fact that she was allowed to see the operation wound—a quite sufficient cause in a person of her temperament. In the case of the other patients we fixed a screen between the head and the field of operation. In not one of the last nine cases was the patient's condition such as to cause us a second's anxiety. They were able to laugh and talk all through the operation.

The effect of the position of the patient, immediately after injecting the stovaine, on the area of analgesia was most marked in the above cases. If the injection was made with the patient on the right side analgesia was most marked on the right side, except in Case VI, where the patient was, shortly after the injection, tilted over to the left side. If the pelvis were raised higher or kept up longer the analgesia ascended higher than when the opposite condition obtained.

Two additional points worth noticing, and both matters of moment to the surgeon, were (a) the great relaxation of the abdominal muscles, and (b) the very marked relaxation of the sphincter ani without stretching. We found that very small doses of stovaine were sufficient for operations around the anus. In fact, it was not necessary to inject sufficient to cause anæsthesia of the legs, as the anal region was one of the first parts to become insensitive. We might also mention here that it was the last to return to the normal condition.

After effects.—Two of the above cases were done on 6/8/07, three on 16/8/07, and five on 23/8/07. Up to the time of writing this paper (27/8/07) none of the patients have shown any bad results from the stovaine injection. There has been no vomiting, and slight headache in one case only, and that lasting for not more than one day. The patients all expressed themselves as very pleased with the anæsthetic. One patient who had had a general anæsthetic twice before was especially emphatic in his praise of the spinal analgesia, and said he much prefers it to general anæsthesia. Case VIII had recently been told he was not a fit subject for a general anæsthetic.

Dr. James Eadie, the father of Dr. James Eadie, of Balaclava-road, Melbourne, died at his son's residence on November 5th. Deceased was 88 years of age, and for some time past had given up the practice of his profession. Formerly he had an extensive practice at Bendigo. He had resided in Victoria for 53 years.

IONIC MEDICATION.

By L. Herschel Harris, M.B., Ch.M. (Syd.), Hon. Assistant Surgeon, Sydney Hospital; Hon. Skiagrapher, Sydney Hospital; Hon. Skiagrapher, Royal Alexandra Hospital for Children, Sydney.

EARLY in 1903, Dr. S. Leduc, Professor of Physics in the Medical School of Nantes, published a short paper on the above subject, and the following year Dr. H. Lewis Jones popularised his work, and was chiefly instrumental in many diseases being treated by the above method. According to the "Ionic" theory of solution, certain substances when dissolved undergo in the process of solution a more or less complete dissociation into their constituent atoms or groups of atoms, each of which becomes at the same time charged with positive or negative electricity. Such electrically-charged atoms are called "Ions."

Sodium chloride, for example, breaks up more or less completely into the two separate parts, Na and Cl, and zinc sulphate into Zn and SO₄. Since the time of Faraday it has been known that certain substances in solution through which an electric current is passed between two electrodes immersed in the solution also undergo a similar dissociation, and the Ions set free at the positive electrode are regarded as carrying a negative electric charge, hence are called "Anions" or negative Ions, whilst those liberated at the negative electrode are called "Cations" or positive Ions¹. Now, a simple experiment devised by David Arthur, M.D.,² will illustrate this:—"Dissolve a small quantity of copper sulphate in gelatine to produce a faint blue colour, cut it up in pieces about the size of an ordinary wax match, and place the terminals of a battery at the extremities. Turn on the current, and gradually the region near the negative pole becomes a darker blue, and the positive much lighter, and in time all the Cu will be seen to be transported to the negative pole, and all the SO₄ to the positive pole in the form of sulphuric acid, as indicated by the colour changes. This shows that there is a double movement, a procession of SO₄ particles or Ions to the positive pole and of Cu particles or Ions to the negative pole, each Ion carrying its appropriate + or - charge. By placing a galvanometer in the circuit the amount of Ions brought to each pole can be calculated."

Lately this form of medication has been employed in the treatment of rodent ulcer, and the apparatus necessary is very simple.

Zinc Ions are generally employed, and the outfit consists of an ordinary constant current battery with a galvanometer, a pair of wires, a flat pad attached to the negative pole which is usually applied to the nape of the neck, and a rod of zinc, which may be made of any size and shape attached to the positive pole. The zinc must be covered with several layers of lint immersed in a 4 per cent. solution of zinc sulphate. This pad acts as a reservoir, and with the enclosed zinc rod is pressed firmly upon the part to be treated. The usual dose for a rodent ulcer is 10 milliamperes for 10 minutes. At the end of the treatment the part becomes blanched, a day or so afterwards a reaction sets in, and a week or two following healing generally results.

It is advisable that the surface to be treated should be as smooth as possible, and with this object in view it is found to be of great advantage to thoroughly curette the ulcer. As a rule the treatment does not cause much pain, varying, of course, with the part treated. If necessary, however, to avoid any pain, some cocaine Ions can be passed as a preliminary by simply placing a few drops of a solution of pure cocaine upon the part and applying the zinc electrode.

Acting on the advice of Dr. F. H. Low, secretary to the Röntgen Society, I decided to try this treatment on several cases, with more or less satisfactory results. Several rodent ulcer cases were treated which had been only slowly responding to the X-rays, and they healed very rapidly. Several fresh cases, too, gave a similar result. The early cases were not curetted, and so several small suspicious-looking nodules were left.

In the cases which had been curetted, a clean, healthy-looking scar resulted. In one case, where the bone was involved, the result was unsatisfactory and, so, similar to the X-rays in this respect. In this particular case the skull was the seat of the trouble, and the application caused considerable pain and a neuralgia for nearly two weeks following.

A remarkable effect was noticed in a syphilitic lesion which had not been on specific treatment, being regarded as a rodent ulcer of the face. At the end of a week following the application a healthy, pale scar resulted. The following week an ulcerated ring appeared around this, and the patient was placed on specific treatment. Shortly afterwards this healed, proving the diagnosis to be correct.

A case of true epithelioma was treated, and though it had been kept in abeyance by the X-rays it rapidly increased after Ionic medication. Several ordinary chronic ulcers were treated, and healed rapidly. It answers admirably in such cases.

Quite recently Dr. H. Lewis Jones, in conjunction with Dr. J. M. Flavelle, carried out some successful experiments at St. Bartholomew's Hospital in the treatment of warts by magnesium Ions. Magnesium sulphate (20 grains to the ounce) was employed. Similarly, by employing iodine in cases of chronic articular rheumatism, iodine Ions have been passed into the joints with very fair results, according to reports.

To sum up the treatment, I must admit that my experience is far too limited to be very dogmatic on the subject. Nevertheless, in cases of simple ulceration, it appears to be quite a rational form of treatment, while in cases of rodent ulcer the action seems to be too localised and too superficial to have a lasting effect. In short, in certain selected cases, it is well worthy of a trial.

[This paper was written and forwarded for publication last May. Owing to unavoidable circumstances, however, it was not published, and the editor has kindly allowed me to add to it a few remarks. The cases referred to have all come under my notice from time to time since they were treated. The specific case has remained quite well, being kept on specific treatment. Of the rodent ulcers, several are threatening to break out again in one or two places originally treated, and one is extending. On this account "Ionic" treatment is not as reliable as "X-ray" treatment.—L.H.H.]

REFERENCES.—(1) Gavin McCallum, "The Life of Matter."
(2) David Arthur, M.D., "Medical Electrolgy and Radiology."

REVIEWS AND NOTICES OF BOOKS.

AMERICAN PRACTICE OF SURGERY. Edited by J. D. Bryant, M.D., and A. H. Buck, M.D. To be completed in eight royal octavo volumes. New York: William Wood & Co. Sydney: L. Bruck. Price, 31s 6d per volume. Vols. I and II.

In a book with the above title we miss as contributors certain names which we in Australia have fixed in our minds when we think of American surgery.

Still, the classification of the work is excellent, and the various articles well written and up to date. Information on certain subjects in the work can be easily got at which is difficult to find in other works on surgery. The article on "General Surgical Prognosis" gives information in one article which is generally scattered through a book, and the same may be said of the article on the "General Survey of Tuberculosis and Syphilis in their relation to surgical work."

Like most American books, it is well printed on good paper, easily read, and beautifully illustrated. As it should be in such a work, the index is good.

We consider the work one of the best, if not the best, we have seen, and if the standard of the first two volumes is kept up—and as far as one can judge by the prospectus this will be done—we advise every surgeon to have a copy in his library.

A TEXT-BOOK OF EMBRYOLOGY. By John C. Heisler, M.D., Professor of Anatomy in the Medico-Chirurgical College of Philadelphia. Philadelphia and London: W. B. Saunders Company. 1907. Melbourne: Jas. Little. Cloth, 12s 6d net; half Morocco, 18s 6d net.

This book is one of the best of its kind within our knowledge. It is a most readable account of embryology, being well printed, clearly written, up to date, well balanced in its different chapters, and not too bulky. The illustrations show the usual superiority of American text-books on medical subjects. For the medical student and for the medical man who wants to keep abreast with the most recent work in embryology we know of no more excellent book.

MANUAL OF ANATOMY, SYSTEMATIC AND PRACTICAL, INCLUDING EMBRYOLOGY. By A. M. Buchanan, M.D., C.M., F.F.R.S. Vol. II. Price, 12s 6d net. London: Baillière, Tindall & Cox. Sydney: L. Bruck.

Professor Buchanan's manual is a combination of a dissector's guide and a text-book of descriptive anatomy for students. In our opinion, the result is neither a good dissector's manual nor a good text-book. The directions for dissection are given at the ends of the sections describing the different regions. In the case of a junior anatomy student great difficulty would be experienced in working out the different structures, many of which would probably be destroyed before the dissector realised what he was doing. As a text-book of systematic anatomy the book has many good points, being clearly and concisely written, with a plentiful use of black type. The section on osteology might be improved in respect to some of the illustrations, and a more modern description of the fibula would be easier for the student to understand.

The embryological sections presuppose some knowledge of the general development of the germ layers, and though organogeny is rendered sufficiently clear, the student would gain from the book a rather disconnected idea of the subject of embryology as a whole. An appendix deals with the question of nomenclature (the older system being adopted throughout), and is useful for purposes of reference. The book is well got up and printed on good paper, and on the whole is a praiseworthy attempt to meet the needs of anatomy students.

OBSTETRICS FOR NURSES. By Joseph B. De Lee, A.M., M.D., Professor of Obstetrics, North-Western University Medical School. Second edition. Philadelphia and London: W. B. Saunders & Co. 1906.

This book is intended for nurses, and is divided into two parts—Obstetrics for Nurses and Obstetric Nursing. It is very finely got up, with excellent illustrations. We like the treatment of the nursing part in general very well, in particular we think the "Nurses' Record" and the subject of hand-feeding are well done; but the obstetric part is not done so fully as would be required for an Australian nurse. While the work as a whole is worthy of study as a variant in many matters of detail on our practice in this country, it can scarcely be recommended as a pupils' textbook.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH NOVEMBER, 1907.

INSANITY IN NEW SOUTH WALES.

DR. ERIC SINCLAIR, the Inspector-General of the Insane in New South Wales, in his annual report for 1906, which has just been laid before Parliament, shows that the increase in the number of insane persons under official cognisance for that year was 248, as compared with an average annual increase for the past 20 years of 131. This is, of course, a very striking increase. One factor which has been operative in causing this increase appears to have been a considerable lowering in the number of patients discharged recovered as compared with former years. This, again, in its turn is partially at any rate attributable to the overcrowded state of the wards in the various hospitals for the insane. The recovery rate must be largely influenced by efficiency of the treatment which is meted out to those who have become affected with mental disorders in the early stages. It is obvious that with an overcrowded state of these institutions their efficiency as hospitals for the treatment of the curable cases of insanity is diminished, and consequently the number of the chronic insane is increased, and the figures referring to the insane under official cognisance must show an unfavourable increase.

It is satisfactory to know, therefore, that the Government has been impressed with the necessity for further increase in the accommodation to be provided for the insane, and a liberal building programme has been authorised. Of necessity, however, it must be some considerable time before these buildings will be ready for occupation, and meantime the

conditions which operate against an improvement in the recovery rate.

But we have to bear in mind that the increase in the number of certified insane persons is at present engaging the serious attention of most civilised countries. According to the British Lunacy Blue Books, in England and Wales since 1859 the certified insane have increased 231 per cent., as compared with an increase of 65 per cent. in the general population; in Scotland since 1858 the certified insane have increased 200 per cent., as compared with an increase of 56 per cent. in the general population; and in Ireland since 1880, the certified insane have increased 77 per cent., notwithstanding a decrease in the general population of 15 per cent.

In the recent Lumleian Lectures before the Royal College of Physicians of London, Dr. G. H. SAVAGE dealt with the question of the increase of insanity, and expressed his opinion that the increase is to be explained rather as an outcome of the progress of civilisation than as pointing to an actual increase of brain disorders. He says: "With the multiplication of rules and regulations . . . many cases are attributable rather to social misfits than to material brain disease." Moreover, as regards the forms of insanity which are being manifested by the ever-increasing insane, "the insanity of brain disease" shows a considerable increase in each of the three forms—the chronic insanity of confirmed and long-lived residents in asylums, senile insanity proper, and general paralysis. Modern methods of treatment not only tend to increase the recovery rate of acute and curable cases, but also help to prolong the lives of the chronic incurables, and the steady accumulation of the hopeless chronic cases adds to the number of the certified insane under official cognisance. As to the causes of the great increase in the number of insane persons in

the State last year, it is, of course, impossible to dogmatise. Last year was not one of any special strain or stress upon the population at large, as the seasons were favourable, money was plentiful, and work was available for all who wished it.

We require much more information on this subject, but it is one that must be seriously tackled, so that we may save this large percentage of our population from falling victims to mental disorders.

THE EFFECTS OF GASTRO-JEJUNOSTOMY.

Now that the operation of gastro-jejunostomy is performed so frequently for various stomach affections, it is well to glance at some of the effects of this operation as regards the physiology of the digestive processes.

In an address delivered before the annual meeting of the American Medical Association this year, Mr. HERBERT T. PATERSON, of London,* records some very interesting observations on this subject. First of all he combats the view that after the operation gastric digestion is lost. He maintains that unless the atrophy of the mucous membrane is advanced owing to disease existing before operation there is usually a progressive increase in the chlorides secreted during the digestion of a test meal. A still more reliable proof of the extent of gastric digestion can be obtained from an examination of the fæces. SCHMIDT has shown that only the gastric juice can digest raw connective tissue; and a careful microscopical examination of the fæces of patients who have been submitted to this operation and fed on raw beef has failed to reveal the presence of any undigested connective tissue. As regards the motility of the stomach after the operation, PATERSON con-

cludes as the result of his experiments and observations that in those cases in which the motility of the stomach is markedly impaired by pyloric stenosis or by adhesions, the operation of gastro-jejunostomy usually results in a marked improvement in the evacuation of the stomach contents. On the other hand, in those cases in which the motility is normal before operation, the evacuation of the stomach is for all practical purposes unchanged by the operation.

It has been generally assumed that the beneficial results of this operation in cases of gastric ulcer are due to the hastened evacuation of the stomach. If it be true that gastro-jejunostomy is really a drainage operation, it follows that in those cases of gastric ulcer in which the motility of the stomach is normal, the operation would be of little or no avail. The improvement which results from this operation in cases of gastric ulcer is, however, well-known, and it must therefore be attributed to some other cause. It is generally admitted that hyperacidity of the gastric juice is the factor which prevents healing of the gastric ulcers. After gastro-jejunostomy there is a marked diminution of the total acidity of the gastric contents, which does not depend upon hastened evacuation. It seems, therefore, justifiable to conclude that the reduction of the hyperacidity favours the process of healing of the ulcer, and so symptoms are relieved. As a result of the observations and experiments PATERSON considers the following conclusions as to the physiological effects of gastro-jejunostomy to be justified:—1. A certain amount of bile and pancreatic juice enters the stomach after gastro-jejunostomy, but the amount is small and has no injurious effect. 2. The acidity of the gastric contents is markedly diminished, usually about 30 to 35 per cent. This is due partly to a diminution of the total chlorides secreted, partly to the partial or complete

* *Lancet*, September 21, 1907, page 815.

neutralisation of the free hydrochloric acid by the alkaline bile and pancreatic juice, and probably also to earlier stimulation of the pancreatic secretion and compensatory earlier fall of the gastric secretion. In gastric ulcer cases the removal of the spasmodic stenosis of the pylorus likewise tends to diminish the total acidity. 3. Gastric digestion is impaired but not lost after this operation. 4. The motility of the stomach if normal before operation is practically unaffected. It is, therefore, not a drainage operation. Its beneficial effects on gastric ulcers are due to the diminution of the acidity of the gastric contents. 5. Gastro-jejunostomy has no material effect on the metabolism of the human body, the percentage of nitrogen and fat absorbed being within the limits observed in individuals who are apparently healthy. This chemico-pathological evidence is supported by the evidence of clinical experience.

Finally, PATERSON warns against the performance of this operation on patients whose gastric symptoms are obviously of neurosopathic origin.

THE MONTH.

The Rebuilding of the Melbourne Hospital.

In our last issue, page 542, we reported that one of the conditions upon which the trustees of the Edward Wilson bequest insisted, before paying over the £100,000, was that "the hospital be rebuilt on the present site, unless within six months a more suitable site be acquired, and approved by the Edward Wilson Trustees." According to the *Melbourne Age*, at a recent meeting of the Victorian Board of Health, the chairman, Dr. Norris, submitted a proposal, which was agreed to—"That the engineer be asked to report on the question of the site for the new Melbourne Hospital." It was quite possible, he said, to build a hospital with 450 beds on the present site, but it was fair to assume that whatever was done now would stand for the next 50, or perhaps 100 years. It was most desirable that a large general hospital should be self-contained, and it must have an out-patients' and an in-patients' department,

an extensive administrative block, nurses' home, laundry, and disinfection plant. He was strongly of opinion, considering the objection to a tall building, that the whole of the structure could not advantageously be erected on the present site; it would be necessary to obtain more land in the vicinity for the out-patients' department, the laundry and the nurses' home. The question of the cost of obtaining another site was important, but the cost of maintenance was even more important. The latter cost would be increased unless the whole institution was within the same boundaries and had the advantage of a spacious site. In addition to the Pig Market, there was the south-eastern corner of Royal Park, and in spite of the apparent vandalism, a worse site might have been suggested than the Treasury Gardens, as part of the plantation could be retained and the present hospital block would be so used as to provide another lung for the city. As regards out-patients' requirements, Dr. Norris suggested the establishment of dispensaries in the different municipal districts, a department for special cases and consultations being maintained at the hospital. By this means, the imposition practised, through lack of information regarding the applicants, more readily obtainable in the districts in which they lived, would thus be minimised.

The Birth Rate.

According to the report of the Bureau of Statistics on the vital statistics of the Sydney metropolis for the month of October last, and for the quarter ending September 30th, the birth-rate shows an upward tendency. For the month of October the birth-rate was 2.37 per 1000 of the population; this is equivalent to an annual rate of 28.44 per 1000. This is the highest recorded since 1901, and 6 per cent. above the monthly average during the last ten years. During the quarter ended September 30th the birth-rate was equivalent to an annual rate of 28.44 per 1000. This is 6 per cent. above the corresponding quinquennial rate for the September quarter. It is, of course, hard to estimate the full significance of this increase, but it is to be hoped that the warnings which have been given in recent years of the evil results which ensue, not only on the individuals, but on the nation at large, from the practice of prevention of conception, have been taken to heart. We cannot, however, be surprised if, as the result of the drought

which threatens to be so disastrous in this State, and the increased cost of living from the high prices of foodstuffs, due to the tariff and the drought, the birth-rate should again show a decided fall.

Sanatorium Treatment of Pulmonary Tuberculosis in Tasmania.

On December 8th, 1906, a small sanatorium for the treatment of patients suffering from pulmonary tuberculosis, founded by certain philanthropic citizens of Hobart, was opened at New Town. The results of eight months' work there are as follows:—One patient was discharged cured; one patient, who was also suffering from heart disease, was discharged relieved, and six patients remained under treatment. Of the latter, three were shortly afterwards discharged cured; the average gain in weight for each case remaining under treatment for one month or longer was 13 lb. It is, of course, much too soon to speak of the permanency of improvement in the cases discharged as cured. There is a movement on foot in Launceston for the establishment of a sanatorium for pulmonary tubercular cases, and judging by the zeal with which it is being taken up, there is every prospect in the near future of the successful accomplishment of the proposal. In the course of his annual report on the public health of Tasmania, Dr. Elkington, Chief Medical Officer, remarks that one-third of all cases of permanent disablement from disease occurring amongst workers of between 20 and 30 years of age are probably due to pulmonary tuberculosis, and that nearly two deaths out of every nine amongst people of between 15 and 45 years of age—the worker's age—are caused by this disease. He urges these facts as a strong argument in favour of the establishment in Tasmania "of that much-needed and highly economic apurtenance of modern civil life—a State sanatorium for consumptives."

Gratuitous Advertisements of Medical Men in the Lay Press.

The gratuitous advertisement of medical men's names in connection with obituary and other notices in the lay press has for a long time been a source of annoyance, but no definite steps have been taken so far as we know in Australia to prevent the repetition of this practice. The matter has been engaging the attention of the profession in South Africa, and at a recent meeting of the Natal Branch Council it was decided to send the

following circular letter to the editors of the lay newspapers:—

Pietermaritzburg, July 12th, 1907.

Sir,—At a recent meeting of the Branch Council I was instructed to notify the newspaper press of the Colony that the medical profession considers the custom of mentioning the names of medical practitioners in bulletins concerning invalids, obituary notices, personal paragraphs, etc., in the lay press, to be unethical; and the Council (on behalf of the profession) would gladly see the practice abolished.

This abolition can only result from the kind co-operation of the Natal editors.

I shall therefore esteem it a favour if you will please inform your staff of our views and request the members thereof to refrain from inserting the names of medical practitioners when writing up matter for the press, and to use their best endeavours to dissuade the public from indulging in this exceptionable practice.—Your obedient servant,

D. CAMPBELL WATT,
Hon. Sec., Natal Branch, B.M.A.

We are not informed as yet of the effects of this circular, but a similar course might perhaps be considered advisable for adoption here.

Temperance Drinks.

The enthusiasm of the temperance advocates over the large increase in the number of abstainers from alcoholic liquors, and the decrease in the number of public-houses, needs some modification in view of the analyses recently made by the principal chemist of the British Government of a large number of temperance drinks. These analyses have revealed the fact that the drinks most commonly patronised at temperance refreshment bars contain in many cases a much larger percentage of alcohol than ordinary wines and beers. Out of one thousand different samples, over 100 contained from 3 to 6 per cent. of proof spirit. Two drinks called herb beer and dandelion stout contained respectively 10.5 per cent. and 12.3 per cent. of proof spirit. The same is true of many patent medicines manufactured in these States, which consist largely of alcohol with various flavouring agents. These drinks and patent medicines are consumed in large amounts by persons who would be horrified at the suggestion that they should take wine or beer. The fact is that many of these drinks will not keep except by the addition of alcohol in some shape or form, and it is right that temperance workers who are seeking to reclaim the inebriates should know that in offering these persons so-called temperance drinks in place of alcoholic liquor, they are, in some cases at any rate, merely keeping up the alcoholic habit in the unfortunate objects of their charity.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

THE monthly meeting of the Branch was held at the Royal Society's House, Elizabeth-street, Sydney, on October 25th, at 8.15 p.m.; the President (Dr. B. J. Newmarch) in the chair. There were about 35 members present.

The President announced the election of the following members:—Drs. James Eric Vernon Barling, Dulwich Hill; Philip Edroy Cortis, Casino; Peter Herbert Metcalfe, Norfolk Island; Ernest Ludlow Newman, Casino; John Murray Sanderson, Ballina; Thomas Walker Sinclair, Sydney; Mary Wilhelmina Wylie, Sydney; and the following nomination for membership—Dr. Mary Hannah Harris, Newcastle.

Dr. T. FIASCHI read a paper entitled "The Radical Treatment of Sliding Hernia." (See p. 578.)

The President thanked Dr. Fiaschi for his able paper, which had thrown quite a new light on the subject of hernia, and which would be of profit to all who operate for hernia. The method was shown to be successful by the condition of the patient exhibited, and it was one which might be safely followed by all.

Dr. SINCLAIR GILLIES read a paper on "A Case of Periodic Fever with marked Lymphocytosis," and Professor Welsh contributed his observations on the blood of the patient. (See page 568.)

Dr. SAWKINS asked if a complete examination of the faeces had been made?

Dr. SYDNEY JAMIESON said it might interest Dr. Gillies and Prof. Welsh to know that he saw their patient in March, 1904, about two years prior to his first coming under Dr. Gillies' notice. He was sent to him by his friend, Dr. MacMurray. He had been suffering for four years from periodically recurring attacks of fever. The attacks had the character already described by Dr. Gillies. Ascertaining that he had been in Southern China some years ago it was thought that the attacks might be malarial in origin. He therefore made an examination of the blood, but could find no evidence of either protozoa or free pigment. The blood count was as follows:—Reds, 4,750,000; hæmoglobin, 96 per cent.; whites, 12,000, consisting of polymorphs, 78 per cent.; small lymphocytes, 20 per cent.; large mononuclears, $1\frac{1}{2}$ per cent.; and eosinophiles, $\frac{1}{2}$ per cent. That, of course, was a very different white count from that described by Prof. Welsh, and shows that the condition described by him was non-existent when the patient was first seen by the speaker. As to diagnosis, he could throw no further light on the subject; the patient certainly had a marked lymphocytosis, but whether that was an essential condition or not they were not yet in a position to say.

Dr. SINCLAIR GILLIES, in reply to Dr. Sawkins, stated that the urine and faeces had been carefully examined during the attacks, and, in the intervals, for pus or parasites, and none had been found. Dr. Jamieson's examination was very interesting, as it showed that one year after the onset of the three week period of fever there was a leucocytosis of 12,000, but that it then was of the usual type associated with suppuration, the polymorphonuclear leucocytes being increased, while now the relation was inverted, the lymphocytes being increased, the polymorphonuclear cells decreased. As

regards Professor Welsh's views, he was unable to reconcile the case with one of chronic lymphocythæmia, as no such periodic fever followed by erythematous eruption had ever been noted in such cases, nor had such a blood count as far as he knew been recorded in any cases of fever produced by bacterial toxins. He regretted the absence of suggestions as to treatment, as that from the patient's point of view was the point of greatest importance.

Dr. BLACKBURN and Dr. GORDON CRAIG contributed a paper on "A Case of Dislocated Spleen with Operation." (To appear in a future issue.)

Dr. HINDER said the only point he would raise was whether there was any evidence of thrombosis in the vessels in the pedicle. The occurrence of thrombosis in the vessels in the twisted pedicle of an ovarian tumour undoubtedly lead to necrosis of the organ, and this would ultimately kill the patient if it were not removed. He thought that there was a certain risk in not removing the spleen in this case.

Dr. FIASCHI was not surprised at Dr. Blackburn's difficulty to find an organ so large as the spleen. A wandering spleen is a particularly foxy organ, and will at times elude the research of the most cunning observer. In the matter of treatment he thought that Dr. Gordon Craig would have been on the safer side had he removed this spleen. The doubt of doing harm by removing an organ, even though proved not to be necessary to life, was more than answered by Bland Sutton's statement, in his classical lecture on wandering spleens, that in his opinion the spleen was a highly developed and specialised lymph gland, and that when causing trouble he had no more hesitation to remove it than a crowd of enlarged glandular concatenatæ. Dr. Craig had been quite right in not fixing the spleen by stitching; that was Suffer's method, and a dangerous one. There are better methods of splenopexy than that, based on the principle of making the spleen an extra-peritoneal organ. Just as a schoolmaster, troubled with a fractious boy, did not always expel him from the school-room, but would sometimes make him stand up just outside the door, so the surgeon determined to conserve the spleen, would make an incision in some suitable part of the peritoneum, carefully detach this on the two sides so as to form a pocket, and would leave there the spleen safely ensconced and out of harm's way. This plan, however, would not have been advisable in this case, for the lacerations on the surface of the spleen and the hæmorrhage were indications for splenectomy. A wandering spleen might at times prove a very dangerous organ. Dr. Craig had spoken of cases of obstruction of the bowels having been mistaken for wandering spleens, but on the other hand there are recorded cases of wandering spleens that have caused obstruction of the bowels and even laceration of the stomach. He feared that the spleen of this particular case would cause further trouble, but the remedy was in Dr. Craig's hands, for he had yet time to remove it.

Dr. CRAIG had seen a case of wandering spleen in a child of 8 or 10 years of age, many years ago. The spleen lay in the left iliac fossa, and could be readily recognised as that organ. Several years later, on examination of the same patient, he could not detect the spleen in the abnormal position.

Dr. GORDON CRAIG, in reply, said that at the time of operation he had felt tempted to remove the spleen. There was no thrombosis in the vessels of the pedicle, and it seemed to him to be such an easy matter to ligature the pedicle and remove the organ, but he did not believe in unnecessarily removing a healthy organ. In the light of recent literature he thought they were

in doubt as to the effects of the internal secretions, and he adopted the more conservative method in this case. It had been said that the patient was liable to a recurrence of the same danger again. He had warned the patient that another operation might possibly be necessary, but on examining the patient again quite recently he had found the spleen firmly adherent in its normal situation. He thought he would adopt the same conservative procedure in any other similar case.

Queensland.

THE clinical and pathological evening of the Queensland Branch was held on Friday, November 2nd, at the Technical College, Brisbane, when a number of interesting specimens were shown.

Discussions took place upon matters connected with the referendum asked for by the parent Council upon the B.A.F.S.M.I. and other matters.

Wellington, N.Z.

At the annual meeting of the Wellington Division of the B.M.A., held on Friday, November 1st, 1907, Dr. Cahill was elected president, Dr. Henry, vice-president; Dr. James R. Purdy, honorary secretary; Drs. Herbert, McGavin, Rawson and Young, a committee for the ensuing year.

REPORTS OF OTHER SOCIETIES.

Sydney University Medical Society.

DURING this year the Sydney University Medical Society has held six ordinary general meetings.

During Lent term Dr. S. A. SMITH lectured on the "Relations of Anatomy to Art," illustrating his remarks with limelight views; and Dr. STEWART MCKAY, in a paper, "Suggestions that might help young medical men during their first years of practice," told us "the what" and "the how" of starting to make a living.

During Trinity term Dr. F. ANTILL POCKLEY dealt with "Our Relations with Ourselves and with our Patients," outlining ideals of character and behaviour for the disciple of the healing art; and Dr. CAMAC WILKINSON addressed the students on "The Nature and Significance of the Tuberculin Reaction."

During Michaelmas term the annual address was delivered by Dr. SCOT SKIRVING, who chose as his subject "Knowledge not of the Schools." He drew attention to the need for the exercise of common sense and of the common senses, the importance of tact, and of not taking oneself too seriously, and pointed out also the value of a knowledge and appreciation of the gems of literature, and the benefits of travel in rounding off a medical man's education.

Dr. SYDNEY JAMIESON read a paper on "Some Hints on the Forensic Relations of Medical Practitioners," showing how we may "keep our end up" when we meet matters medico-legal.

The students held their undergraduates' meeting in Trinity term. Mr. FLECKER read a paper reviewing recent work on syphilis. Mr. BARRON dealt with some original work on the pale spirochæte; and Mr. NORRIE spoke on "The Evolution of the Brain."

The thanks of the Society are heartily accorded to the practitioners and others through whose kindness the library has now become a valuable help and incentive to students of medicine. The books fill a long-felt want, and are a nucleus of what we hope in the future will be a large and comprehensive collection.

The Sydney and Suburban Provident Medical Association.

THE annual meeting of the above Association was held at 121 Bathurst-street, Sydney, on October 29th, 1907.

The President (Dr. Sydney Jamieson) occupied the chair, and there was a fair attendance of members of the sub-committee, general committee, and of the active and consulting staffs.

The Hon. Secretary's report showed the progress of the Association had been continuous and uniform during the year ended October, 1907, there being now 3335 members in benefit, as compared with 3200 at the close of last year. The active staff now numbers 103, and there are 45 members on the consulting staff. The chemists dispensing for the Association now number 45. The working of the Association had been harmonious.

The Hon. Treasurer's financial statement also showed satisfactory results on the year's operations, £4348 7s 4d representing the net receipts, and, further, that the Association's working was conducted on economic lines, so that it would compare with similar societies in the State, with marked advantage to the conduct of the S. & S. P.M.A.

The PRESIDENT congratulated the meeting on the satisfactory report of the hon. secretary and the financial statement of the hon. treasurer, and it was moved, seconded and carried that the report and the financial statement be adopted.

The election of office-bearers was then proceeded with and resulted as follows:—The president (Dr. Sydney Jamieson), the hon. secretary (Dr. A. Acland O'Hara), and the hon. treasurer (Dr. E. H. Binney) were unanimously re-elected; the general committee to consist of Drs. George Armstrong, W. H. Crago, C. E. Corlette, J. M. Gill, John Harris, M. O'Gorman Hughes, E. Ludowici, D. Luker, D. MacMaster, H. Russell Nolan, A. Palmer, A. E. Perkins, G. E. Rennie, J. S. Brandon, C. W. Carruthers, S. Shirlow, J. C. Windeyer.

After Care Association.—A meeting of the After Care Association, recently formed in the interests of convalescent mental sufferers who are without homes or suitable employment, was held in Sydney last month. Dr. H. O. McDouall, medical superintendent of Gladesville Hospital, occupied the chair. He pointed out that there were many cases of mental convalescents who were in urgent need of help. In many instances it was absolutely prejudicial to the future welfare of these people that they should be forced to return to their old environments, and it should not be forgotten that recurrent attacks of mental maladies were always the hardest to deal with. He was heartily in sympathy with the proposal. It was announced that to carry out this project would necessitate the raising of at least £1000. If the fund could be obtained a home would be established, which would at first be for women, and only accommodate 10 to 12 cases, who would thus be given a temporary home while looking about for opportunities of earning their livings, and meanwhile could acquire habits of industry and self-help under the direction and control of a trained matron housekeeper. The secretary read a report showing that much good work had been accomplished among patients at the hospitals for insane. The treasurer's statement showed that over £31 was in hand, while a number of subscriptions had been promised.

REVIEW OF CURRENT MEDICAL LITERATURE.

GYNÆCOLOGY AND OBSTETRICS.

Pubiotomy, with Notes of Three Cases.

Gibson (*Journal of Obstetrics and Gynecology of the British Empire*, May, 1907). This paper is based on the personal experience of three cases, successful to both mother and child, in the practice of the author, which are described in detail, and 12 cases witnessed in the clinic of Döderlein, whose technique is followed.

Indications for operation:—When the child is alive, in cases of narrow pelvis when the cervix is fully dilated and in spite of good contractions and postural treatment, the head still moves freely above the brim, or when from the first the disproportion between the head and the pelvis is too great to allow the head to pass through the brim. In cases of flat pelvis with conjugata vera not less than 6·75 cm., and generally contracted pelvis not less than 7 or 7·5 cm., but for these low conjugates the head must not be much larger or harder than normal. Also in normal pelvis with the child alive, when the face presents with the chin posterior and all efforts to change the position have failed.

Technique of Operation.—A colpeurynter is placed in the vagina at the onset of labour; this preserves the bag of membranes, dilates the soft parts, and does not prevent the head coming down. When the cervix is fully dilated the membranes must be ruptured. The bladder being emptied, a transverse incision large enough to admit the finger is made over the upper edge of the os pubis, between the symphysis and the tubercle, down to the bone. With the finger the tissues are pushed away from the back of the bone to avoid injury to the bladder. Döderlein's special needle is then inserted so that it closely hugs the bone a finger's breadth to the side of the symphysis, and under the guidance of a finger in the vagina is made to protrude through the skin well out in the labium majus. A tiny incision over the point allows the needle to protrude; Gigli's saw is attached and drawn back and out through the upper incision. Up to this the patient is in the crossed position, but before the saw is used the patient's legs are brought rather closely together and an assistant presses on each side to prevent the bone from suddenly springing apart when divided. With the saw stretched fully in a larger arc of a circle the bone is divided by from six to ten movements. The bleeding may be free, but can usually be controlled by compression. The patient's legs are now allowed to hang in Walcher's position, and when the ends of the bones are well separated, which they do easily, the head can often be pushed down through the brim without difficulty. When the ends of the bone separate 3 cm., the conjugate is increased by 1 cm.; when they separate 6 cm. the conjugate is increased by nearly 2 cm. Spontaneous delivery is the ideal, and is worth waiting for. If delivery must be effected, it is carried out by forceps, and after delivery, or when it is decided to wait for spontaneous delivery, the upper incision is closed by two deep sutures and the lower by one. After the birth of the placenta the vagina is plugged with gauze, and firm compresses are put over the incisions and the vulva to prevent the formation of a hæmatoma. (The compress and the vaginal plug are removed in 8 hours, when the patient should relieve the bladder.) Strips of adhesive plaster are placed round the pelvis, and an ordinary tight binder applied.

After-treatment.—Dorsal position for 12 days; allowed up on the 14th day, and permitted to walk two days later.

Valvular Disease of the Heart, complicating Pregnancy and Labour.

Newell (*Surgery, Gynecology and Obstetrics*, May, 1907.) The dangers attending valvular cardiac lesions in pregnancy, while recognised by consultants, are not always sufficiently considered by general practitioners, as illustrated by the writer in the following cases:—(1) A multipara, 6½ months pregnant, almost moribund on admission to the hospital; heart dilated with mitral regurgitation; moderate oedema of the lungs and general condition so bad that immediate evacuation of the uterus would probably prove fatal. History of non-compensation before pregnancy occurred. Under treatment she improved for 24 hours, but then becoming worse it was decided to empty the uterus. Under ether, manual dilatation of the cervix and version, death occurring before this was completed. Previously had been under the care of several physicians, but the advisability of evacuating the uterus had not been considered. The case illustrates the dangers of pregnancy as a complication when compensation had begun to fail before the advent of pregnancy. If abortion had been induced early in pregnancy, the patient would have survived and probably lived for months or years in comparative comfort. (2) A primipara, with mitral stenosis, seen in consultation when in labour. Compensation had begun to fail at the sixth month, but strychnine and digitalis had enabled her to go to term. In consultation, the writer found the first stage had lasted 12 hours, and the patient had been 4½ hours in the second stage, cyanosed, and unable to lie down. There was oedema of the lungs. He immediately delivered with forceps, the head being on the perineum. Patient rapidly reacted under stimulation and recovered. The patient would with advantage have been delivered earlier, and then the strain to which the damaged heart was subjected, lessened. (3) A primipara, with aortic incompetence, passed through pregnancy in comparative comfort; a slight tendency to dyspnoea and some oedema of the feet being the only indications of cardiac insufficiency. When seen in consultation had been in labour 48 hours; morphia had been given freely. The uterus was tonically contracted round the child, os dilated to half an inch, cervix applied tightly over the child's head, lying R.O.P. Under ether, cervix dilated, manual rotation of occiput, and forceps delivery. The mother was collapsed at the end of the operation, reacted well to stimulants, but collapsed and died four hours subsequently, there being no hæmorrhage. The child was extracted alive, but died five or six hours later. The writer considers that the patient's life would have been saved if she had been delivered 24 or 36 hours earlier. His conclusions from these cases are:—(1) That any heart lesion, even if perfectly compensated under normal conditions of life, should arouse apprehension and call for constant watchfulness if pregnancy supervenes; (2) that in case pregnancy comes as a complication when the heart lesion is imperfectly compensated, the indication is for immediate relief by emptying the uterus, since a heart which is not able to care for its ordinary work has no chance of supporting the added burden of pregnancy; (3) when a previously well-compensated heart fails under the extra work thrown on it by pregnancy, an attempt may be made to restore compensation by rest and appropriate treatment, but unless these measures are promptly successful the

heart must be relieved by the removal of the extra burden; (4) in any case in which an organic heart lesion can be demonstrated, even though it may have caused no symptoms during pregnancy, labour should be regarded with apprehension, and every means should be taken to shorten the strain of labour, and thus relieve the heart of its extra burden, although it may seem to be doing its work satisfactorily.

Dysmenorrhœa in Abnormal Pelvic Conditions.

Holden (*Surgery, Gynecology and Obstetrics*, May, 1907). This paper is a study of 1000 consecutive cases admitted into the gynecological wards of Johns Hopkins Hospital in the service of Dr. Howard Kelly. Of these cases 474 had dysmenorrhœa as a marked symptom, and the causes are tabulated. The writer recognises two great classes:—1. Dysmenorrhœa occurring in patients whose pelvic organs are apparently normal. This is the dysmenorrhœa which is often considered as the result of mechanical obstruction, uterine neuroses, etc. In 222 cases no pelvic abnormality was found. 2. Dysmenorrhœa associated with and apparently caused by some gross abnormal condition of the pelvic organs. The various causative conditions are tabulated and inferences are drawn as follows:—(a) Most conditions affecting the external genitals and vagina have little effect with the exception of two cases of atresia of the vagina. (b) There is no ætiological relationship between dysmenorrhœa and either cervical laceration or polypoid endometritis. (c) Retro-displacements of the uterus. Out of 70 nulliparæ, 60 had dysmenorrhœa—i.e., 86 per cent., which points to a definite causal relationship. Retro-displacements occurring after childbirth is a much less frequent factor, 75 per cent. of the cases having no dysmenorrhœa. (d) Pelvic inflammatory disease, i.e., infective disease of the uterus and its appendages. Dysmenorrhœa was present in 85 out of 270 cases, or 31 per cent. of the 270 cases. (e) Myoma uteri. In 26, or 20 per cent., of the 133 cases, dysmenorrhœa was apparently caused by the tumour. In general, submucous myomata are most frequently associated with this symptom, and subperitoneal least. (f) Tuberculosis of the pelvic organs, malignant tumours of the uterus and ovarian tumours, have apparently little effect in causing dysmenorrhœa.

The general conclusions are:—1. Dysmenorrhœa is present in 47 per cent. of all gynecological hospital patients. 2. In 23 per cent. of the entire number it is definitely caused by abnormal pelvic conditions. 3. The pathological conditions which are most frequently seen as the causes of dysmenorrhœa are retro-displacements of the uterus, pelvic inflammatory disease, and uterine myomata. These three conditions account for nearly 90 per cent. of all the dysmenorrhœa which is caused by pathological conditions of the pelvic organs. Retro-displacements account for 41 per cent., pelvic inflammatory disease for 37 per cent., and uterine myomata for 11 per cent.

The Importance of Icterus during Pregnancy for Mother and Child.

Kehrer (*Archiv. für Gynecol.* bd. 81, abstracted in *Jour. Obstet. and Gynec. Brit. Emp.*, September, 1907). The icterus catarrhalis of pregnancy is discussed, quoting a case of his own, in which jaundice, with all its accompanying symptoms—itching, sleeplessness, clay-coloured stools, slow pulse—was present all through pregnancy. Fourteen days after term a prolonged labour set in, and a weakly child was born, with

several old hæmatomata of a bluish-dark colour. The child was not jaundiced when born, but its head increased in size, a pulpy swelling arose behind one ear, and it died after four days, slightly jaundiced, with large subcutaneous, subperitoneal and subpal hæmorrhages; blood was found in the ventricles of the brain, in the pericardium, pleura, mediastinum, kidneys, bladder; only the liver and pancreas were normal. A few days after labour the mother was free from jaundice, but on the second day developed a neuritis cruralis and symptoms of osteomalacia, great tenderness on pressure, and she could not separate one leg from the other. All the symptoms disappeared spontaneously on the eighth day after delivery. In regard to recurring icterus and pregnancy, Kehrer comes to the conclusion that the importance of the jaundice for the mother consists in a tendency to cholæmic hæmorrhages, sleeplessness, itching, emaciation due to want of appetite and diarrhœa, and nervous excitement. The greatest danger of icterus during pregnancy is to the child. In most cases premature labour occurs, or the infants are still-born or die shortly after birth. The causes of these intra-uterine deaths is not shown by the scanty reports of autopsies. Experiments on animals with intra-venous injection of bile acids after ligaturing the common duct, show that it is only in the second half of pregnancy that morphological changes are produced in the fœtus; in the earlier months the healthy placenta forms a barrier against bile-constituents and reacts to an acid poisoning of the mother animal. How far the human placenta differs from the animal placenta is not yet established, but it seems that in cases of duodenal catarrh, in cholecystitis or cholangitis with jaundice of more than a fortnight's duration and, as a rule, in yellow atrophy of the liver, the placenta becomes infected, and the fœtus is born with congenital hæmorrhage and icterus. Icterus gravis, combined with nephritis, is invariably fatal to mother and child, and an innocent, but prolonged jaundice, while serious to the mother, is much more so to the fœtus. Kehrer recommends induction of premature labour in all cases of acute yellow atrophy, and even in prolonged jaundice, as soon as the fœtus is viable, in order to save it from further intoxication.

Inversion of the Uterus treated by de Ribes' Bag.

Mantel and Pinard (*Annals de Gynec. et d'Obstet.*, May, 1907). The case is reported of a woman æt. 26 whose third labour after lasting 20 hours was terminated by forceps. Acute inversion of the uterus occurred but was speedily replaced. Five days later inversion again ensued spontaneously during micturition, without signs of hæmorrhage or collapse. As it could not be replaced manually, a de Ribes' bag was inserted into the vagina. When removed 48 hours subsequently it was found that the inversion was completely reduced. The bag was reinserted for a further eight days. Recovery was complete. Pinard considers inversion of the uterus very rare, having seen only one case in 60,000 labours. Uterine inversions are grouped as—(1) Immediate, produced during the second or third stage; (2) recent, existing during the puerperium; (3) chronic, found weeks or months after labour. As regards treatment, manual reduction is employed when possible, and the rubber bag is used if the inversion recurs. The use of vaginal tampons or stem-pessaries is not favoured. Where manual reduction is useless, particularly when sloughing is present, operative treatment is adopted. Operation is the only resort in most chronic cases.

OPHTHALMOLOGY.

The Comparative Efficiency of Silver Nitrate, Protargol, and Argyrol.

T. Harrison Butler (*Ophthalmoscope*, January, 1907) has investigated the comparative value of the above reagents in the treatment of acute muco-purulent conjunctivitis caused chiefly by the Koch-Weeks bacillus, at the British Ophthalmic Hospital in Jerusalem, where the disease is very prevalent in the summer time. Cases were chosen in which the disease was in an early stage, and the two eyes nearly equally affected, one drug being applied to the right eye, another to the left, while the third was given for home use. The next day the eyes were inspected, and the differential treatment continued, day by day, until either one drug established a superiority, or it was certain that both were having an equal effect. Forty-two cases in which silver nitrate was tested against protargol were followed to a complete cure. The results were as follows:—Protargol superior in 62 per cent. of the cases, silver nitrate superior in 10 per cent., equal results in 24 per cent. In twenty-two completed cases protargol was tested against argyrol, with the following results:—Protargol proved superior in 50 per cent. of the cases, argyrol proved superior in 0.45 per cent., even results in 49.45 per cent. In the first series the difference in favour of protargol was in many cases not very pronounced, but in the second series it was very great. In 13 cases argyrol was tested against silver nitrate. In seven of them the effects were equal; in six argyrol showed a slight superiority. During the summer of 1906 he used protargol in several hundred cases of acute muco-purulent conjunctivitis, and the results were, in his opinion, decidedly better than he obtained with silver nitrate in former years. His conclusions are that in this disease protargol is a more satisfactory agent than either argyrol or silver nitrate, and that argyrol is better than the nitrate. The results do not in any way contradict those obtained by others who have tested the colloidal salts in gonorrhœal conjunctivitis. He deprecates the use of a stronger solution than 2 per cent. or at most 3 per cent. of the silver nitrate. Protargol and argyrol were used in 33 per cent. solution.

The Anatomic Changes in Ophthalmia Sympathetica.

E. V. Brown (*Archives of Ophthalmology*, September, 1907). About a year ago Fuchs described for the first time an anatomic condition constantly found in the diseased eyes which cause sympathetic inflammation of the fellow eye. The lesion consists of an infiltration of all parts of the uvea with lymphocytes, giant cells, and epithelioid cells, the last singly and in clusters. This epithelioid proliferation is the only peculiar and unusual feature of the condition. These cells arise from five sources, viz., ordinary connective tissue cells of the uvea, the pigmented stroma cells, the adventitial and endothelial cells of blood-vessels, and lymph spaces, from the endothelial cells normally present between the elastic lamellæ of the choroidea, and lastly from the pigment epithelium, especially that of the iris and corona ciliaris. In contrast with uveitis which does not cause sympathetic inflammation, there is in proliferative uveitis an entire absence of fibrinous exudate, polynuclear leucocytes, and plastic adhesions between the iris, lens and ciliary processes, although these conditions may coexist. The one essential and characteristic process displays itself, therefore, *within* the confines of the uvea and *not upon* its surface, and is not a fibrino-plastic uveitis, as taught heretofore, but an infiltration

or "proliferative" uveitis. How constant and characteristic these findings are is shown by Fuchs' study of his own material. From among sections of 181 eyes removed for ophthalmia sympathetica, or fear of it, in the past 20 years, he selected by microscopic study, and without knowledge of the clinical histories, the sections of 24 eyes showing the proliferative uveitis. Subsequent reference to the records showed a sympathetic inflammation in the other eye in every case except one, thus corroborating his anatomic diagnosis. The one case had a clinical history of sympathetic irritation only. Sixteen other cases of sympathetic irritation showed no signs whatever of proliferative uveitis in the enucleated eye.

The great significance of this work has as yet been hardly recognised. Clinically we know little of ophthalmia sympathetica, what causes it, why, how, or where it begins in the primary eye. Much less do we know its path to the other eye, the time of its appearance, or the general or local conditions which determine it. Finally, we cannot recognise the disease, as such, when it does appear in the other eye, for it is not essentially different clinically from other uveal inflammations. On the other hand, nothing more definite is known of its pathologic anatomy. If, therefore, a proliferative uveitis can be shown to be invariably present in true sympathetic inflammation, a sharp line of demarcation will be drawn pathologically between sympathetic inflammation and sympathetic irritation, and ophthalmia sympathetica be taken at one stroke from the domain of the clinician, where, so far, it has been best known, and established first as an anatomic entity. Brown says this is as it should be, but it will not help the surgeon to tell when sympathetic inflammation is threatening, without removing the primary eye, and that is the whole difficulty. He then submits three cases of his own which substantiate Fuchs' findings, along with a review of the literature of similar findings in the eye and analogous epithelioid cell proliferatives in other parts of the body, and concludes that "the three cases which the writer has studied corroborate the findings of Fuchs based upon 35 cases that 'proliferative uveitis' is the essential anatomic condition present in the eye which causes sympathetic inflammation of its fellow," and, secondly, "a fibrino-plastic uveitis usually complicates the proliferative uveitis of sympathetic inflammation." At the same time proliferative uveitis is in no wise pathognomonic of sympathetic ophthalmia, because: (1) Typical sympathetic inflammation occurred in one case without any proliferative uveitis in the exciting eye (Fuchs). (2) Typical proliferative uveitis was present in one case presenting only symptoms of sympathetic irritation of the other eye (Fuchs). (3) Typical infiltrative uveitis with epithelioid cell proliferation occurred in one case of spontaneous iridocyclitis (Fuchs). (4) Typical infiltrative uveitis, though without epithelioid cell infiltration, occurred in three cases of "serous" iridocyclitis (Fuchs). (5) Only one case of proliferative uveitis absolutely uncomplicated by fibrino-plastic uveitis has been reported (Fuchs), and the sympathising eye in this case showed "severe synechiæ" (Fuchs). (6) Epithelioid cell proliferation has been specifically noted in but one of the ten *sympathising* eyes studied (Schirmer), although Fuchs has said six of them showed little or no endophthalmitis. (7) Epithelioid cell proliferation is not found in the late stages of sympathetic inflammation (Schirmer and Fuchs). It is seen very early only by the use of oil immersion.

The paper, which is a lengthy one, shows evidence of very careful study of the subject, and is well worth perusal.

NEUROLOGY.

Syphilis and General Paralysis.

Heiberg (*Centralblatt für Nervenheil u. Psych.*, Feb., 1907) reports some investigations he has made into the relation between the number of notified cases of syphilis in Copenhagen and the number of general paralytics dying in the Hospital for Insane there. He considers that he has made out that a rise in the number of cases of syphilis has caused a rise in the number of deaths from general paralysis just 15 years later. He deals with the statistics of the years between 1864 to 1905.

Investigation of Cerebro-Spinal Fluid.

Henkel (*Archiv. für Psychiat. u. Nervenheil.*, 42-3) reviews the work of a very large number of writers on this subject, and concludes with an account of his own results. He drew off usually about 5 c.cm. of the fluid, and kept the patient in bed for the next 24 hours. In determining the amount of albumen he added 1 c.c. of Esbach's re-agent to 2 c.c. of the fluid in a tube with a narrow lower end marked in c.m.'s. The presence of serum-albumin was determined by boiling after half saturation with magnesium sulphate. For microscopical investigation he centrifuged 2 c.cm. of the fluid for 30 minutes, poured off the supernatant fluid and made a smear from the deposit; fixed in ether alcohol and stained with Ehrlich's triacid stain. "If one finds by a magnification of 70 to 80 in the majority of microscopic fields eight or more lymphocytes, one can speak of a lymphocytosis."

Dupuytren's Contraction.

Plesch (*Centralb. für Nervenheil u. Psych.*, April, 1907) recognises two forms of this disease: one occurs through organic disease of the spinal cord and one through purely mechanical influences. A case of each kind was treated with Merck's fibrolysin. The case due to mechanical causes was cured after ten injections into the contracture. Bathing and massage were also used. The other case was refractory.

Organotherapy.

Dreyfus (in the *Jahresbericht der Neurologie*, 1906) reviews the recent work in organotherapy in connection with nervous diseases. The chief bulk of the review deals with Möbius' antithyroidin serum. There can be no doubt as to the fact that the great majority of those who have published cases treated with this serum have been pleased with the results obtained. Dreyfus extracts a large number of the papers written on the subject, and considers that Stransky (*Wiener Medizin-Presse*, Nos. 10 and 11) correctly sums up the situation in the following way:—"However, this much can be said, judging from the almost unanimous reports in the literature, that in a general way Möbius' serum seems to favourably influence almost every functional disturbance connected with Basedow's disease, and that as a result of the treatment not only subjective but very frequently objective improvement is marked. But as a rule the results are only temporary. It appears best to begin with drop doses and gradually to increase. Doses of 5-6 grammes per day appear to be the maximum, but the total quantity reached should be about 50-60 grammes, spread over about six weeks. Since the results are only temporary, it appears advisable to repeat the treatment from time to time."

The next subject dealt with is the treatment of cerebro-spinal meningitis. He reviews the work of

Escherich (*Wiener Klin. Wochenschr.*, No. 25), which was based on the fact that organisms produce substances having a bactericidal effect on the same organisms. These substances are spoken of by Emmerich as proteolytic enzymes or nucleases. Some of these nucleases also possess the property of dissolving the protoplasm of other bacteria. For example, the proteolytic enzyme of the *B. pyocyaneus* has a destructive action on the micrococcus catarrhalis and on the meningococcus. Escherich, therefore, used this "pyocyanase" in the treatment of cerebro-spinal meningitis. So long as the meningococcus was only found in the nasal secretion, washing out with the pyocyanase completely removed it. In most of the cases in which he did lumbar puncture and injected the substance there was a decrease of the fever and an improvement of the nervous symptoms. Examination of the cerebro-spinal fluid showed that a great decrease in the number of cocci—and in some cases a complete disappearance—had been caused.

In regard to the same disease, Flexner (*Jour. Amer. Med. Ass.*, vol. xlvii.) artificially produced it in pigs and monkeys. Some of these recovered, and he found that their serum had a markedly beneficial effect on other pigs and monkeys suffering from the same disease.

The year's reports in regard to tetanus antitoxin appear to show that very large doses, injected subdurally, must be given if a cure is to be looked for.

Landsteiner and Botheri (*Centralbl. f. Bakteriöl.*, Bd. xlii) appear to have ascertained that the tetanus toxin has a special affinity for cholestearin and protagon. Hence they explain why it is that the nervous system is the chief system attacked by the poison.

Nitch's work (*Centralbl. f. Bakteriöl.*, Bd. xlii), based on a large number of statistics, shows that in regard to hydrophobia Pasteur's method of treatment has reduced the number of deaths from dog bite from 10 per cent. to 1 per cent. of those bitten.

Cerebellar Function.

Another paper reviewed in the *Jahresbericht* just to hand is a thoughtful paper by Munk (*Preuss. Akadem. der Wissenschaften*, No. 20-22). He alleges that many effects produced in animals from which the cerebellum has been removed are due to the wounding of neighbouring structures. Amongst these effects he mentions strabismus, nystagmus, disturbances of mastication, bending of the arms, etc. The forced movements which occur, such as opisthotonos, the tonic extension of the arms, the tendency to walk backwards, etc., he thinks are due to the fact that the animals are unable to sit or move in a natural way, and therefore make all sorts of movements in their attempts to carry out accustomed actions. These movements, therefore, show—according to Munk—just those movements of which the animal is still capable. The swaying and falling which follow the extirpation rapidly improve, but only slight improvement takes place in the functions of sitting, lying, walking, etc. Munk, therefore, concludes that the cerebellum is directly concerned with these latter, but that other portions of the brain govern the former. It is possible, he points out, that other portions of the brain govern the whole of the mechanism of equilibration, and the disturbance in function which is seen after extirpation of the cerebellum may be ascribable to disturbances in motor and sensory functions, the loss of which prevents the proper functioning of higher equilibration centres. Loss of the cerebellum produces asthenia, atony, and astasia.

MEDICAL MISCELLANY.

The *Tribune* reports that Dr. James Carroll, of the United States Army, had died a martyr to Science. At the conclusion of the war with Spain Dr. Carroll was commissioned to make a report on the origin and course of yellow fever. Being of opinion that the mosquito was the chief transmitter of the disease, Dr. Carroll, whilst in Cuba, allowed himself to be bitten by a fever-infected mosquito. By this means he was enabled to demonstrate conclusively that his theory as to the source of the disease was the correct one. He, however, contracted the fever himself, and has recently succumbed after prolonged suffering.

There are now in Germany 87 public sanatoria, with 4822 beds, and 35 private sanatoria, with 2118 beds, numbers which are said to exceed the total of all the other public sanatoria of Europe combined. Eleven other public sanatoria, with 800 beds, are in the course of construction. There are also 17 institutions, with 650 beds for children with advanced tuberculosis, and 67 institutions with 6092 beds for less advanced cases of tuberculosis in children.

The medical officer of health for Portsmouth states that by attending certain cattle markets between Portsmouth and London he obtained direct proof that milch cows in the last stages of tuberculosis were sold in open market at nominal prices for human consumption. His position enabled him to prevent the disposal of this meat in Portsmouth, but there is no doubt it was sent to other populous places, including London. The Local Government Board and the Board of Agriculture have power to make notification of tuberculosis in animals compulsory and to require infected animals destroyed. This power has been exercised as to anthrax and other diseases.

The comparatively recent introduction of bubonic plague into India (1897) has rendered Europeans and Hindus uneasy on the subject of sleeping sickness. Owing to the constant communication between India and Africa it is feared that the germ of the disease may be brought back by returning Hindus. For this reason the deliberations of the African colonial conference now being held in London are of uncommon interest to the people of India.

The Esperanto congress recently held at Cambridge points to the conclusion that Esperanto has come to stop. Upwards of one thousand four hundred delegates came to the congress from all parts of the world and their enthusiasm was intense. Many medical men attended, and in time probably it will be spoken and written by every member of the medical profession.

The most popular teetotal drinks contain more alcohol than the ordinary drinks of the common beer-house. The principal chemist of the English Government laboratory has been devoting his attention to the composition of the drinks sold at temperance bars, and he has analysed upwards of a thousand different samples of temperance "tipple," of which 71 contained 3 per cent., 37 contained 4 per cent., and 8 contained 6 per cent. or more. The two samples which contained the largest quantity were called herb beer and dandelion stout. The former contained 10.5 per cent. and the latter 12.3 of proof spirit, or about three times the quantity contained in the lighter drink sold at public-houses as dinner ale.

The city attorney of Waco, Texas, has been instructed to submit an ordinance forbidding the distribution of medical samples in that city.

It is reported that the Secretary of Agriculture has decided to make an experiment with the cultivation of fenugreek in certain of the arid lands of Texas. The seeds of the plant are credited with the property of promoting the assimilation of fatty foods, and on this account has recently been recommended in the treatment of tuberculosis. It is little used in medicine here, but is an ingredient of most "condition powders" for horses and cattle. It is official in the German pharmacopœia, under the name "*semen fœnugræci*."

The High Court of Germany has decided that it is illegal for the physicians of any locality to band together and establish a definite code of fees for professional services. The Court took the highly complimentary but unsatisfactory ground that physicians were actuated by a desire to benefit their fellows, and did not expect to be paid the full value of their services. They stood above the level of men of business pursuits, and the establishment of a fixed fee for their services would lower their dignity.

A fine of \$25 is said to have been imposed on a householder of Memphis, Tennessee, on the charge of violating the health ordinance by wilfully and maliciously tearing down a diphtheria sign from his residence.

In Shanghai and Hongkong English physicians belong to firms. There are usually four partners. Every man in turn goes home for a year in every four, and has an opportunity to see what is being done there. His practice is taken up by the other members, and the absentee receives his percentage of the profits at regular intervals.

Medical science has now turned its searchlight upon the question of the effect of motoring upon tuberculosis, and has at once secured a striking and important observation. Specimens of blood were taken from Mr. S. F. Edge both before and after his recent famous drive of 24 hours on a Napier motor. The first specimen was found to have a tuberculo-opsonic index of 0.85, while the second, taken directly after the race, gave 1.17. The fact that the active resistance of the body towards the tubercle bacillus was raised after so great a feat of endurance is not a little striking. The remedy of a motor ride is more attractive than that of cod-liver oil.

The Registrar-General for Ireland in a recent report stated that nearly 12,000 persons last year died of tuberculosis in various forms, and of these some 9000 were the victims of phthisis, thus showing that whilst in England and Scotland the mortality from tuberculous disease has definitely declined, in Ireland there is a tendency to increase, as compared with earlier years.

Japan in the matter of education leads the way as far as medical inspection of school children is concerned, and, in point of fact, has left the United Kingdom lagging hopelessly in the rear of the international struggle. Japan has recognised the fundamental truth that the aim of all true education should be to produce that type of citizen who shall be the fittest in all respects, whether mentally, bodily, or morally, and has gone straight down to the root of the thing and straightway appointed something like 9000 medical school inspectors. Great Britain has less than a hundred of such officers, and their chief care is for the buildings rather than for the scholars.

CORRESPONDENCE.

London.

(FROM OUR OWN CORRESPONDENT.)

Cancer Research—The late Sir William Tennant Gairdner—University College—Lord Lister and the City of London—St. Thomas's Hospital and School—The British Sanatorium at Davos Platz.

THE sixth meeting of the General Committee of the Imperial Cancer Research Fund was held on July 1st at Marlborough House, under the presidency of his Royal Highness the Prince of Wales. The report of the Executive Committee shows that in August last Dr. Bashford, General Superintendent of Research and Director of the Laboratory, attended the meeting of the British Medical Association in Toronto and took part in the discussions on cancer, subsequently proceeding to the United States, where he visited many of the important institutions in which cancer investigation is carried on. In September he also attended the German International Cancer Congress at Heidelberg and Frankfurt. While in Germany he obtained a valuable interchange of views with Professor Ehrlich and others engaged in inquiry as to cancer. The Government of Cape Colony forwarded an important report of a Committee of the House of Assembly appointed to examine certain reputed cancer cures, principally consisting of herbal remedies. The report is in accordance with the experience of the Imperial Cancer Research Fund that the claims made on behalf of such remedies, when thoroughly and impartially tested, cannot be substantiated. In his report Dr. Bashford states that the hopes of advancing knowledge in regard to cancer become year by year more centred on experimental investigations. During the past year 1282 fresh cases were reported from the London hospitals and 392 from provincial hospitals. Of 1806 cases of cancer which up till now have been reported from India, in 1513 persons cancer affected the surface of the body, and only in 76 affected internal organs; 335 occurred in persons living on a vegetable diet, and 608 in persons living on a mixed diet, mainly flesh. Isolated reports have been received from individual investigators in India, the colonies and the protectorates, to which full justice will be done when the statistics of the ethnological distribution of cancer are considered in detail. Statistical investigations have arrived at a point at which experiment has become essential in order to solve definite problems relating to the incidence of cancer which statistics are unable to decide. Dr. Bashford points out that Dr. William Ogle in the Registrar-General's report for 1889 stated that 1 out of 21 men and 1 out of 12 women reaching the age of 35 eventually died of cancer. From Dr. Tatham's most recent figures of national mortality in the Registrar-General's report for 1905 it has been calculated by using Dr. Ogle's method that, on an average, the chance that a man who reaches the age of 35 will eventually die of cancer is 1 in 12, and the chance that a woman who reaches the same age will eventually die of cancer is 1 in 8. In conclusion the report states that:—"Serious attention has been given to the additional alleged cancer cures which have been brought to our notice during the past year. Unfortunately, it is impossible to assign a curative value to any of them. It is desirable from a public point of view to allude specifically to one alleged remedy for cancer which had been tested last year and has again been subjected to renewed tests. This alleged remedy—trypsin alone or in conjunction with amyllopsin or as pancreatic extract,

in which trypsin, as such, is absent—has received a quasi-scientific basis by the assertion that its employment had cured two mice inoculated with carcinoma. When the assertion was made its validity was carefully tested on mice with rapidly-growing tumours. The large number of observations then made showed that the cures claimed were based on fallacies inseparable from so small a number of experiments. The reinvestigation of this alleged remedy, with the modifications since suggested, has shown that it is incapable of curing mice of inoculated cancer or of influencing the progressive growth of tumours." The adoption of the report was moved by Sir William Church and seconded by Sir Henry R. Swanzy. On the motion of Mr. Henry Morris, honorary treasurer of the fund, a special vote of thanks was recorded to Mr. and Mrs. Bischoffsheim for their recent munificent gift of £40,000. Sir Richard Douglas Powell proposed, and Mr. Edmund Owen seconded, a vote of thanks to the Prince of Wales for presiding, to which his Royal Highness made a suitable reply.

The news of the death of Sir William Gairdner, late Professor of Medicine in the University of Glasgow, will be received with genuine regret by a wide circle of friends and relations, both at home and abroad. To the large army of medical men scattered all over the world who were his students the sad event will appeal in a very special way. No teacher of medicine in any university was ever more universally respected, and a sense of personal loss will enter into the soul of every Glasgow graduate when he learns that his friend and master has passed over to the great majority, because he was essentially not the teacher only, but the "guide, philosopher and friend" of every man who was his pupil. Medical students are admittedly shrewd critics of those under whose guidance they are trained for the battle of professional life, and it is no small testimony to the worth of the great, simple, kind, and honest man who has passed from our midst to be able to say that he gained the affectionate regard and loyal admiration of everyone who sat in his class-room or accompanied him round the wards of the Western Infirmary. Could they be mustered together this body of men would constitute as striking an epitaph to Gairdner as does the Church of St. Paul to Wren: of both it could be truly said, "*Si queris monumentum, circumspice*." Sir William had reached the ripe age of 82 when his summons came, and those of us who knew him well can appreciate with what alacrity and confidence his *adsum* was said. He had suffered for many years from Stokes-Adams disease, but within the last few months of his life he escaped, in large measure, the syncope attacks which were such a marked feature of the earlier phases of his illness. Eventually, however, it must have been to such an attack he succumbed, because on Friday afternoon, June 28th, after having been unusually cheerful and comfortable during the morning, he was found dead on his couch. Sir William was the eldest son of the late Dr. John Gairdner, at one time President of the Royal College of Surgeons of Edinburgh. He was born in Edinburgh on November 8th, 1824, and was educated, both at school and university, in that city. He took his M.D. degree in 1845, and was awarded a gold medal for his thesis, the subject of which was "Death." In 1850 he was elected a Fellow of the Royal College of Physicians, Edinburgh, and in 1853 commenced to lecture on the practice of medicine and clinical medicine in the Extra-Academical School, continuing to do so till his appointment in 1862 as Professor of Medicine in the University of Glasgow, a chair which he filled until his retirement in 1900. The same

year in which he was appointed to the Glasgow Chair of Medicine he published a volume on "Public Health in Relation to Air and Water," a record of the first course of lectures on sanitation ever delivered in Scotland. Following upon the publication of this volume, its author was appointed medical officer to the City of Glasgow, a post which he held for nine years. During the time of his residence in Glasgow, Professor Gairdner was actively associated with medical institutions of the city, and was physician to the Royal Infirmary and senior physician to the Western Infirmary, to which he was afterwards honorary consulting physician. In 1888 he was President of the British Medical Association on the occasion of its meeting in Glasgow, and a few years afterwards was unanimously elected President of the Royal College of Physicians of Edinburgh, the first occasion on which the chair of the College had been occupied by one not residing in Edinburgh or its neighbourhood. Sir William Gairdner, who was created a K.C.B. in 1898, was Physician in Ordinary to Queen Victoria in Scotland from 1873 to 1901, and had been Honorary Physician in Ordinary to the King in Scotland since his Majesty's accession. He was a Fellow of the Royal Society and of many learned societies, and had been representative of the University of Glasgow on the General Medical Council of Education. From the University of Edinburgh he received the degree of LL.D. in 1883, and four years later the M.D. degree (*honoris causa*) from the University of Dublin, being also elected an Honorary Fellow of the Royal College of Physicians, Ireland. Professor Gairdner had published "Clinical Medicine: Observations Recorded at the Bedside, with Commentaries," "The Physician as Naturalist" (memoirs bearing on the progress of medicine), "The Three Things that Abide," and other works.

The *Standard* gives the following account of the first assembly of the various faculties at University College since it became an integral part of the University of London. The meeting, which was largely attended, was held in the Botanical Theatre of the College on July 3rd. Dr. T. Gregory Foster, the Provost, presided, and said that Lord Reay had sent a message from the Hague Conference regretting his enforced absence. Professor Cormack, Vice-Dean of the Faculty of Science, said that the session of 1906-1907 had been one of general activity and progress. The incorporation of the College in the University, which took effect on January 1st, had resulted in many important changes, the chief of which was that the organisation of the College had been brought into direct relation to that of the University. The Boys' School was to be moved to Hampstead, and the completion of the new buildings for the School of Advanced Medical Studies would make available a large amount of room for other departments. The benefit of this would be especially great to the Faculty of Arts. Important benefits would be seen in the establishment of a series of training or seminar libraries for each of the chief arts departments, providing for the arts students and arts teachers the equivalent of the laboratory on the science side. Students in the faculties of arts and laws and of science for the current session numbered 1079, as against 1105 last year. Sir Edward Busk, ex-Vice-Chancellor and Fellow of the College, distributed the prizes and medals to the successful students. He congratulated them on their successes, and the students generally on the privileges they enjoyed. No difficulty had arisen through their incorporation with the University of London, and everything worked smoothly and successfully. The old traditions were carried on and the old principles

were maintained. Those principles were that there should be breadth of subject combined with liberality of thought, and they were as dear to the University as to the College. By the incorporation the College stood to gain both directly and indirectly, and with the public eye always on an institution doing such good work, support would come and extension would follow. Dr. J. Bourne Benson presided over a meeting held in the afternoon to consider a scheme for the establishment of a residential hall for male students. He said that about 300 men students attended the College lectures, and it was believed that a hall in which many of them could reside would fill a long-felt want. He saw no reason why it should not be self-supporting. Between £12,000 and £15,000 would be required, and half that amount would be subscribed in shares. Lord Reay, Lord Ampthill, and other gentlemen intimately connected with the College warmly supported the scheme, and some had already given donations. In proposing a resolution expressing approval of the scheme, Sir William Ramsay said that such halls were the rule rather than the exception in America, and they were self-controlled. He made the suggestion that the proposed hall should be controlled by a small committee of senior students. Dr. Gregory Foster, in seconding the resolution, said that the establishment of such a hall would be a work of Imperial importance in view of the steadily-increasing numbers of colonial students. They had found a very suitable site on the Hampstead Garden Suburb Estate, the directors of which would welcome the erection of a hall. Parents, he felt sure, would be glad to send their sons there. Dr. Blake Odgers supported the resolution, which was carried unanimously.

On June 28th, at the Guildhall, Lord Lister was presented with the freedom of the City of London, in the presence of a large and distinguished company, gathered together under the presidency of the Lord Mayor. After Lord Lister had entered the chamber, escorted by members of the City Lands Committee, the Town Clerk read the order of the Court of Common Council directing:—"That the freedom of the City, in a suitable gold box, be presented to the Right Hon. Lord Lister, O.M., M.D., F.R.S., D.C.L., LL.D., in recognition of his eminence as a surgeon and of the invaluable services rendered to humanity by his discovery of the antiseptic system of treatment in surgery, whereby so great a progress in surgical science has been achieved, so much suffering has been alleviated, and so many valuable lives have been prolonged." After the usual declaration of loyalty and fealty, Lord Lister was presented for the freedom by Alderman Guthrie and Alderman Hanson, on behalf of the Merchant Taylors Company, and the City Chamberlain (Sir Joseph Dimsdale) admitted the new freeman in a speech full of praise for the great work of a great man. A century ago, he reminded those present, the freedom of the City was presented to Dr. Jenner, the discoverer of vaccination, and on that day they honoured one whose lifelong labours marked another epoch in the history of medicine and surgery. Lord Lister stood out as one who had been instrumental in assuaging suffering, lessening disease, and prolonging and saving numberless lives. So long as humanity existed the name of "Lister" would live, and the memory of him who bore it remain enshrined and held in affectionate reverence by succeeding generations. Sir Joseph Dimsdale then extended to Lord Lister the right hand of fellowship, and presented him with a copy of the freedom in a handsome gold casket. Lord Lister, in a voice distinctly audible, thanked the City Chamber-

lain for his "overpoweringly kind words." "The work which it has been my great privilege to be engaged in," he continued, "has brought its own all-sufficient reward. Perhaps I need not say that I value in the highest degree this, the greatest civic distinction in the world. If it were possible, my Lord Mayor, to enhance the honour which you have conferred upon me to-day, it has been done by the extraordinary consideration shown by you and your court for my personal convenience. Had it not been for your great kindness, it would have been impossible for me, in my very infirm state of health, to have received here your gift in this historic building." The casket is a beautiful piece of workmanship, and bears the following inscription engraved in the centre:—"Presented by the Corporation of the City of London, with the freedom of the City, to the Right Honourable Lord Lister, O.M., M.D., F.R.S., D.C.L., etc., in recognition of his eminence as a surgeon and of the invaluable services rendered to humanity by his discovery of the antiseptic system of treatment in surgery. Guildhall, E.C., June 28, 1907." The end panels are decorated with emblems relating to Lord Lister's distinguished career, and in the centre of the lid is a finely painted miniature of the recipient, surmounted by a coronet. On the dome of the lid stands a figure of Hygeia, with the snake and cup, and on each side of the base are other figures, one representing the City of London offering the scroll of freedom, and the other symbolising Medical Science holding out the torch of Fame.

The prizes to the students at the Medical School of St. Thomas's Hospital were distributed by Mr. Rider Haggard on June 26th. Mr. J. G. Wainwright, the treasurer of the hospital, in introducing Mr. Haggard, said that the difficulties of carrying on medical education, unaided as they were from any outside source, were extremely great. The authorities of the hospital fully recognised that it was specially incumbent on them to promote the study of pathology. They had received a few donations for the endowment of a Pathological Research Fund, but earnestly hoped for more. In regard to general hospital work that year, they had treated more patients than in the previous year, and at a lower cost with no less efficiency. But at present they had three wards vacant through lack of funds. If they were in work they would accommodate some twelve or thirteen hundred patients yearly. The Dean introduced the prizewinners, the medallists of the year being Mr. C. M. Page (the Bristowe medal for pathology and morbid anatomy), Mr. J. A. Clark (the treasurer's gold medal for general proficiency and good conduct), and Mr. H. B. Whitehouse (the Sutton Sams memorial prize for obstetric medicine). Mr. Rider Haggard, addressing the students, asked those who had not won prizes or certificates not to be down-hearted. It was not given to everybody to shine in examination. This was a very self-satisfied world to-day, but he did not think we had rid ourselves of all superstitions when such things as Christian Science, the faith of the Peculiar People and of the anti-vaccinationists, and those who believed in patent medicines still flourished. One of the things which the students would have to grapple with in the future was the evil arising from the crowding of large populations in the great cities. The shrinkage of the birth-rate would make it necessary for medical men to concentrate their skill and ability upon saving such children as came into the world, and preventing the frightful wastage of child life. He advised them to cultivate imagination and go in for hard, steady work. The large company afterwards inspected the hospital, and took tea in the garden.

On June 28th, the annual meeting of the Queen Alexandra Sanatorium, Davos, was held at the rooms of the Medical Society of London, Lord Burghclere being in the chair. The report presented by the Council stated that the net receipts during the financial year ending March 31st, 1907, reached a record of £5722 12s 11d, as against £5264 18s 8d for 1905-6, the special appeal in Scotland having resulted in the addition to the general fund of £3445 10s 5d, and the Davos bazaar in January having produced £1410 5s net. In consequence of a rise in the price of materials and labour in Switzerland, the architects had found it necessary to revise their original estimate for the building, which now amounted to £20,600. The Council had decided in favour of completing the original design for 58 beds. In moving the adoption of the report, Lord Burghclere remarked that £15,000 still had to be collected. The buildings had been already commenced, and would, he hoped, be roofed during the present season. They aimed at making the Sanatorium, when complete, self-supporting. The fees would not exceed 30s or 35s a week. It would be under English management for English patients only.

AMERICAN MEDICAL DEGREES.

(To the Editor of the Australasian Medical Gazette.)

Sir,—Pray permit me to use your columns to bring before the medical practitioners of Australia the status of the M.D. degree of Louisville, Kentucky. It may be of importance when selecting a *locum tenens* so qualified.

According to the "American Medical Directory" (official roster of the American Medical Association) there are four institutions in Louisville which include the term *University* in their titles, viz.: (1) *University of Louisville*, Medical Department; (2) *Hospital College of Medicine*, Medical Department, Central *University of Kentucky*; (3) *Louisville National Medical Department*, State *University*, Louisville (negro); (4) *Kentucky University*, Medical Department, Louisville.

All the above are presumably in "good standing" in *Kentucky*, "but at present, and for some years past, no medical college diploma or degree alone qualifies a man to practise medicine in the United States," says a responsible medical correspondent in America. "Most of our States have stringent laws on the subject, and graduates—no matter of what school—must go before a 'State Board' of medical examiners and pass a rather thorough examination before being permitted to practise at all" (*Ibid.*).

It is evident, therefore, that the M.D. of these institutions is not a qualification to practise unless backed by the certificate of proficiency of a State Board. As this, I am sure, is not generally known to medical practitioners, they can easily test the merits of a Louisville graduate's claim to recognition for employment by looking up the "Register of Medical Practitioners," published annually in the "Government Gazette." If the would-be *locum tenens* possesses a State's exam. certificate it will be found in such "Gazette"; then, well and good; but if not, he should not be countenanced. A gross injustice is perpetrated when a person with a worthless degree signs himself "M.D." and parades this charm to the detriment of regularly qualified British (or other) medical practitioners.

I am in a position to give chapter and verse for the above authoritative quotations.—I am, etc., FACT.

Mr. G. Arnold wishes to draw special attention to his advertisement—Elastic Woollen Bandages, page 13.

INSANITY IN AUSTRALASIA.

New South Wales.

FROM the annual report of Dr. Eric Sinclair, the Inspector-General of the Insane, for 1906, we learn that on December 31st, 1906, the number of persons under official cognizance was 5525. On December 31st, 1905, the number was 3146 males and 2131 females, total 5277; the increase during the year was, therefore, 248. The average for the past 20 years is 131, so that the increase for the last year must be considered as an excessive one. In 1903, however, an even larger increase occurred, but with this exception no year approaches the present. The proportion of the insane to the general population is 1 to 277. The patients on the register were distributed as follows:—5239 were in hospitals for the insane, 65 were in licensed houses, 193 were absent on leave under the provisions of the Lunacy Act, and 28 in hospitals for the insane in South Australia. The number in hospitals has increased by 237, in licensed houses by 9, and in South Australia by 2.

Admissions.—The number of admissions during the year was 1123, of whom 909 were admitted for the first time, and 214 have been in the same hospital on some previous occasion. Natives of New South Wales formed 54 per cent.; other Australian States, 9 per cent.; England, 17½ per cent.; Ireland, 10 per cent.; Scotland, 4½ per cent.; and other countries, 5 per cent. of the whole admissions. Admissions from places beyond the State, mostly oversea arrivals, are reported to the Master in Lunacy, under section 140 of the Lunacy Act. These numbered 24, and, in addition, 14 were admitted to the Reception House on remand, but were discharged in a few days.

Discharges.—The number of patients discharged recovered was 428, equal to a rate of 38·11 per cent. on the admissions and readmissions. In this return are included the figures from the Hospital for Imbeciles at Newcastle. Excluding these, the recovery rate is 39·47 per cent. The number of those discharged improved was 57, showing a proportion to the admissions and readmissions of 5·07 per cent. The recovery rate shows a considerable drop as compared with previous years, the average for the past ten years being 42·81 per cent. The fall in the recovery rate is partially due to the overcrowded condition of the institutions, and the consequent interference with their proper use as curative hospitals. The number of patients discharged on probation, or granted leave of absence to the care of friends, during the year was 372, making, with those remaining from the previous year, 566. Of these, 200 were discharged, 169 were returned to hospital, and 4 died; 193 remaining still on leave at the end of the year, as compared with 194 at the close of the previous year. Patients are transferred from one institution to another when improvement is likely to follow from change of this kind, and to relieve the accumulation of cases in the hospitals which admit the larger number of acute cases.

Deaths.—The deaths numbered 389—274 of these being of men and 115 of women. Calculated on the average number resident, this gives a percentage of 7·51, which is a slight increase on the rate of the previous year. By far the greater number of deaths were due to cerebral and nervous diseases, the proportion being 147 out of a total of 389, or 37·79 per cent. of the whole. Of these, 60 were cases of general paralysis, a disease which almost invariably fatal is increasing in modern times out of proportion to the increase of population. Pulmonary consumption caused 61 deaths; inflammation of the lungs, 26; and old age and debility, 37. The consumptive patients are,

as far as possible, separated from others, and treated in the open air. More, however, should be done in this direction, and it is essential that one of the cares of the immediate future should be to erect a suitable building for patients in the hospitals for the insane who suffer from this disease on admission or who develop it in the hospital. It cannot be considered right to permit the general body of the patients to be exposed to what is now believed to be a risk of infection, if it may be avoided by such a simple means as providing a suitable building. A special ward has already been erected at Rydalmere, but it is by no means sufficient to meet the requirements of the whole department. It is only available for female patients, and it is not always possible to transfer to one hospital every patient who suffers from consumption.

Accidents.—The number of accidents reported in the hospitals was 32, of which 1 ended fatally. There was one case of suicide by drowning. There were six cases of attempted suicide.

The increase in the Insane in the Hospitals.—For many years past it has been necessary to call attention in the annual report to the insufficiency of the accommodation provided in the hospitals for the insane in this State for the number of patients who are sent to them for treatment. By continually calling attention to overcrowded hospitals, due to the increase in the number of patients, an impression that there is an increase in insanity to an unusual amount is likely to be induced. A feeling of this nature has been more or less universal in all countries during late years, and has led to full and careful investigation by competent authorities as to whether it is an increase in the amount of insanity or is explicable in other ways, and to the publication of statistical and other papers relating to it. In New South Wales the same reasons as in other countries have operated to increase the number of patients in the hospitals. Those in charge of the institutions, who are able to look back over a considerable number of years, can readily endorse the opinion that many patients, both from the classes of eccentric or borderland cases and of the demented from advancing age, are now sent to the hospitals who were formerly not so dealt with, and that relatives, because of less distrust of the institutions, more readily send their afflicted ones for admission. It is necessary to realise that were the population to become stationary, the increase in the insane would in all probability soon also cease to grow, but while the community increases by many thousands annually, of whom a certain proportion will in the nature of things become afflicted with insanity, provision for these patients must inevitably be made. The State cannot, therefore, avoid the necessity of increasing annually the expenditure both for the maintenance of the department and for the construction of additional wards and institutions.

Accommodation.—Additions are now being made at Gladesville, Callan Park, Kenmore, and Rydalmere which will add 150 beds. At the same time these will provide acute wards, or more correctly mental hospitals, to each of the acute hospitals for the better treatment of recent cases, in accordance with the policy explained in the report for last year. To provide for the chronic accumulation, wards are being erected at Morisset capable of accommodating from 150 to 200 beds. This site consists of 1300 acres of land on the shores of Lake Macquarie, and it is hoped to use it as an industrial farm colony for suitable patients.

Provision for recent acute cases.—The further provision for recent cases referred to in last report—viz., that for patients in the early stages of insanity a

which threatens to be so disastrous in this State, and the increased cost of living from the high prices of foodstuffs, due to the tariff and the drought, the birth-rate should again show a decided fall.

Sanatorium Treatment of Pulmonary Tuberculosis in Tasmania.

On December 8th, 1906, a small sanatorium for the treatment of patients suffering from pulmonary tuberculosis, founded by certain philanthropic citizens of Hobart, was opened at New Town. The results of eight months' work there are as follows:—One patient was discharged cured; one patient, who was also suffering from heart disease, was discharged relieved, and six patients remained under treatment. Of the latter, three were shortly afterwards discharged cured; the average gain in weight for each case remaining under treatment for one month or longer was 13 lb. It is, of course, much too soon to speak of the permanency of improvement in the cases discharged as cured. There is a movement on foot in Launceston for the establishment of a sanatorium for pulmonary tubercular cases, and judging by the zeal with which it is being taken up, there is every prospect in the near future of the successful accomplishment of the proposal. In the course of his annual report on the public health of Tasmania, Dr. Elington, Chief Medical Officer, remarks that one-third of all cases of permanent disablement from disease occurring amongst workers of between 20 and 30 years of age are probably due to pulmonary tuberculosis, and that nearly two deaths out of every nine amongst people of between 15 and 45 years of age—the worker's age—are caused by this disease. He urges these facts as a strong argument in favour of the establishment in Tasmania "of that much-needed and highly economic apurtenance of modern civil life—a State sanatorium for consumptives."

Gratuitous Advertisements of Medical Men in the Lay Press.

The gratuitous advertisement of medical men's names in connection with obituary and other notices in the lay press has for a long time been a source of annoyance, but no definite steps have been taken so far as we know in Australia to prevent the repetition of this practice. The matter has been engaging the attention of the profession in South Africa, and at a recent meeting of the Natal Branch Council it was decided to send the

following circular letter to the editors of the lay newspapers:—

Pietermaritzburg, July 12th, 1907.

Sir,—At a recent meeting of the Branch Council I was instructed to notify the newspaper press of the Colony that the medical profession considers the custom of mentioning the names of medical practitioners in bulletins concerning invalids, obituary notices, personal paragraphs, etc., in the lay press, to be unethical; and the Council (on behalf of the profession) would gladly see the practice abolished.

This abolition can only result from the kind co-operation of the Natal editors.

I shall therefore esteem it a favour if you will please inform your staff of our views and request the members thereof to refrain from inserting the names of medical practitioners when writing up matter for the press, and to use their best endeavours to dissuade the public from indulging in this exceptional practice.—Your obedient servant,

D. CAMPBELL WATT,
Hon. Sec., Natal Branch, B.M.A.

We are not informed as yet of the effects of this circular, but a similar course might perhaps be considered advisable for adoption here.

Temperance Drinks.

The enthusiasm of the temperance advocates over the large increase in the number of abstainers from alcoholic liquors, and the decrease in the number of public-houses, needs some modification in view of the analyses recently made by the principal chemist of the British Government of a large number of temperance drinks. These analyses have revealed the fact that the drinks most commonly patronised at temperance refreshment bars contain in many cases a much larger percentage of alcohol than ordinary wines and beers. Out of one thousand different samples, over 100 contained from 3 to 6 per cent. of proof spirit. Two drinks called herb beer and dandelion stout contained respectively 10.5 per cent. and 12.3 per cent. of proof spirit. The same is true of many patent medicines manufactured in these States, which consist largely of alcohol with various flavouring agents. These drinks and patent medicines are consumed in large amounts by persons who would be horrified at the suggestion that they should take wine or beer. The fact is that many of these drinks will not keep except by the addition of alcohol in some shape or form, and it is right that temperance workers who are seeking to reclaim the inebriates should know that in offering these persons so-called temperance drinks in place of alcoholic liquor, they are, in some cases at any rate, merely keeping up the alcoholic habit in the unfortunate objects of their charity.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

THE monthly meeting of the Branch was held at the Royal Society's House, Elizabeth-street, Sydney, on October 25th, at 8.15 p.m.; the President (Dr. B. J. Newmarch) in the chair. There were about 35 members present.

The President announced the election of the following members:—Drs. James Eric Vernon Barling, Dulwich Hill; Philip Edroy Cortis, Casino; Peter Herbert Metcalfe, Norfolk Island; Ernest Ludlow Newman, Casino; John Murray Sanderson, Ballina; Thomas Walker Sinclair, Sydney; Mary Wilhelmina Wylie, Sydney; and the following nomination for membership—Dr. Mary Hannah Harris, Newcastle.

Dr. T. FIASCHI read a paper entitled "The Radical Treatment of Sliding Hernia." (See p. 578.)

The President thanked Dr. Fiaschi for his able paper, which had thrown quite a new light on the subject of hernia, and which would be of profit to all who operate for hernia. The method was shown to be successful by the condition of the patient exhibited, and it was one which might be safely followed by all.

Dr. SINCLAIR GILLIES read a paper on "A Case of Periodic Fever with marked Lymphocytosis," and Professor Welsh contributed his observations on the blood of the patient. (See page 568.)

Dr. SAWKINS asked if a complete examination of the faeces had been made?

Dr. SYDNEY JAMIESON said it might interest Dr. Gillies and Prof. Welsh to know that he saw their patient in March, 1904, about two years prior to his first coming under Dr. Gillies' notice. He was sent to him by his friend, Dr. MacMurray. He had been suffering for four years from periodically recurring attacks of fever. The attacks had the character already described by Dr. Gillies. Ascertaining that he had been in Southern China some years ago it was thought that the attacks might be malarial in origin. He therefore made an examination of the blood, but could find no evidence of either protozoa or free pigment. The blood count was as follows:—Reds, 4,750,000; hæmoglobin, 96 per cent.; whites, 12,000, consisting of polymorphs, 78 per cent.; small lymphocytes, 20 per cent.; large mononuclears, $1\frac{1}{2}$ per cent.; and eosinophiles, $\frac{1}{2}$ per cent. That, of course, was a very different white count from that described by Prof. Welsh, and shows that the condition described by him was non-existent when the patient was first seen by the speaker. As to diagnosis, he could throw no further light on the subject; the patient certainly had a marked lymphocytosis, but whether that was an essential condition or not they were not yet in a position to say.

Dr. SINCLAIR GILLIES, in reply to Dr. Sawkins, stated that the urine and faeces had been carefully examined during the attacks, and, in the intervals, for pus or parasites, and none had been found. Dr. Jamieson's examination was very interesting, as it showed that one year after the onset of the three week period of fever there was a leucocytosis of 12,000, but that it then was of the usual type associated with suppuration, the polymorphonuclear leucocytes being increased, while now the relation was inverted, the lymphocytes being increased, the polymorphonuclear cells decreased. As

regards Professor Welsh's views, he was unable to reconcile the case with one of chronic lymphocythæmia, as no such periodic fever followed by erythematous eruption had ever been noted in such cases, nor had such a blood count as far as he knew been recorded in any cases of fever produced by bacterial toxins. He regretted the absence of suggestions as to treatment, as that from the patient's point of view was the point of greatest importance.

Dr. BLACKBURN and Dr. GORDON CRAIG contributed a paper on "A Case of Dislocated Spleen with Operation." (To appear in a future issue.)

Dr. HINDER said the only point he would raise was whether there was any evidence of thrombosis in the vessels in the pedicle. The occurrence of thrombosis in the vessels in the twisted pedicle of an ovarian tumour undoubtedly lead to necrosis of the organ, and this would ultimately kill the patient if it were not removed. He thought that there was a certain risk in not removing the spleen in this case.

Dr. FIASCHI was not surprised at Dr. Blackburn's difficulty to find an organ so large as the spleen. A wandering spleen is a particularly foxy organ, and will at times elude the research of the most cunning observer. In the matter of treatment he thought that Dr. Gordon Craig would have been on the safer side had he removed this spleen. The doubt of doing harm by removing an organ, even though proved not to be necessary to life, was more than answered by Bland Sutton's statement, in his classical lecture on wandering spleens, that in his opinion the spleen was a highly developed and specialised lymph gland, and that when causing trouble he had no more hesitation to remove it than a crowd of enlarged glandular concatenatæ. Dr. Craig had been quite right in not fixing the spleen by stitching; that was Suffer's method, and a dangerous one. There are better methods of splenopexy than that, based on the principle of making the spleen an extra-peritoneal organ. Just as a schoolmaster, troubled with a fractious boy, did not always expel him from the school-room, but would sometimes make him stand up just outside the door, so the surgeon determined to conserve the spleen, would make an incision in some suitable part of the peritoneum, carefully detach this on the two sides so as to form a pocket, and would leave there the spleen safely ensconced and out of harm's way. This plan, however, would not have been advisable in this case, for the lacerations on the surface of the spleen and the hæmorrhage were indications for splenectomy. A wandering spleen might at times prove a very dangerous organ. Dr. Craig had spoken of cases of obstruction of the bowels having been mistaken for wandering spleens, but on the other hand there are recorded cases of wandering spleens that have caused obstruction of the bowels and even laceration of the stomach. He feared that the spleen of this particular case would cause further trouble, but the remedy was in Dr. Craig's hands, for he had yet time to remove it.

Dr. CRAIG had seen a case of wandering spleen in a child of 8 or 10 years of age, many years ago. The spleen lay in the left iliac fossa, and could be readily recognised as that organ. Several years later, on examination of the same patient, he could not detect the spleen in the abnormal position.

Dr. GORDON CRAIG, in reply, said that at the time of operation he had felt tempted to remove the spleen. There was no thrombosis in the vessels of the pedicle, and it seemed to him to be such an easy matter to ligature the pedicle and remove the organ, but he did not believe in unnecessarily removing a healthy organ. In the light of recent literature he thought they were

Adulterated Food.—During September 218 samples of food submitted by various local authorities were analysed in the Board of Health's laboratory. In 15 cases the chemical evidence was such as would support prosecution if undertaken. Of 203 samples of milk taken in the city and suburbs 32 cases of adulteration were detected. Three samples of groceries and one sample of spirits out of three analysed were adulterated. Twenty-one vendors have been warned.

Victoria.

Anthrax in Man.—Dr. Norris, Chairman of the Board of Health, has informed the members that two cases of anthrax in man had occurred near Melbourne. One was on a fair way to recovery, and the other was doing well. One of the sufferers was a grocer on the Dandenong Ranges, within 20 miles of Melbourne, and the source of infection had not so far been traced. The other case was apparently due to bones imported from India for the manufacture of bonedust, or manure. As far as he could see the case had arisen owing to the fact that while the bones were treated with a view of making them sterile, the bags in which they arrived (which were equally liable to be infective) were not sterilised. The patient, who worked at Footscray, had not handled the bones, but had handled the manure, which was packed in the bags from which the bones were taken.

The Sanitary Condition of Parliament House.—The Melbourne representative of the *Sydney Morning Herald* reports that every year there are loud complaints about the unhealthy condition of the Federal Parliament House. All who have to work in it complain of ill-health, which is undoubtedly due to the foulness of the atmosphere. Headaches are chronic with many members, and dyspepsia makes itself evident after dinner, when the debate proceeds. During the time the building was in possession of the State Parliament efforts were made to put it in a condition fit for human beings, but the expenditure of thousands of pounds has had no appreciable effect. Not only is the ventilation bad, but the building is unsewered, and the sanitary condition is reminiscent of Melbourne's early days. Mr. Deakin's ill-health and the breakdown of many other members are attributed by some to the unhealthy surroundings in which they worked. Mr. Owen, Director of Public Works, has now a scheme in hand for supplying pure air and exhausting the foul air by means of fans. This will cost over £1000. There is also a sewerage proposal to be carried out during the recess, which will cost £3800.

Infectious Diseases.—Cases of diphtheria reported to the Board of Public Health, though still above the normal, are on the down grade. For the fortnight ended October 17th there were 66 cases, with 3 deaths, throughout the State, as against the average of 48 cases, with 3 deaths, for the previous four years. The typhoid cases totalled only 6, being 2 below the average; and scarlet fever 5 cases, as against the average of 22. The board referred to the Crown Solicitor, with the view to a prosecution, the case of a woman who left the Infectious Diseases Hospital while suffering from diphtheria, and liable to communicate the complaint to others.

Queensland.

Bubonic Plague.—Dr. B. B. Ham, Commissioner of Public Health, reports for the five weeks

ending November 9th, 1907:—*Brisbane.*—No case of plague has occurred in Brisbane since July 26th, 1907. *Plague in rodents.*—Rats destroyed 2343, mice 209; rats examined 1796, mice 197; rats infected 4, mice nil; date of last infected rat, November 8th, 1907. *Cairns.*—On October 8th a post-mortem examination was held on a patient who died at the local general hospital. *Bac. pestis* were found in the specimens of the viscera examined. Total number of cases reported to date 10, five of which have proved fatal. Total number of rats destroyed during period 521; examined 75; found to be plague infected 10. The Chief Inspector of the Health Department, together with the foreman of the rat and cleansing gang, are at present at Cairns supervising the cleansing and rat-destruction operations being carried out. The outbreak is now at an end, and the plague hospital has been closed.

Medical Matters in Parliament.

Infant Life Protection.—In the Victorian State Legislative Assembly on October 22nd the Chief Secretary moved the second reading in the Legislative Assembly of a bill to amend the Infant Life Protection Act of 1890. There was a great agitation going on throughout Australia in regard to the necessity for an increase in our population, and yet at the same time the State was needlessly losing the lives of a number of its children. Some figures, prepared by Dr. Norris, showed that the death-rate amongst these children was very high contrasted with the rate as applying to children of the State generally. In the first instance a change must be made to induce a better class of women to act as foster-mothers. When it became known that the homes had to be regularly visited by the police numbers of women declined to take the children, and it had therefore been decided to substitute another method of supervision. The proposal in the present bill was that the administration should in future be by the Secretary of the Neglected Children's department instead of by the police. A slight addition to the staff of that department would be necessary. In all parts of the State there were committees of ladies who had assisted to supervise these children in their homes. These ladies met once a month and made the payments to the foster-mothers, and saw that the children were being properly cared for and were sent to school regularly. Reports were made to the Neglected Children's department on these matters. If they could utilise the splendid machinery that they had in their children's department for the purpose of visiting the infant children they would do well. Most of the ladies in question had intimated their desire to assist in the work in every possible direction. It was also intended to appoint a number of lady inspectors under the bill. Lady inspectors under the Factories Act had done excellent work. In regard to the protection of infant life ladies would certainly be better than policemen. The changes contemplated would, it was thought, have the effect of inducing persons in the country districts to take these children, and not alone in the metropolitan area, as was too largely the case at present. Another question which would come up for consideration was that of the State supplementing the payment made to the registered Nurses. The measure forbade absolutely the payment of a lump sum to them. The lump sum payment, it was to be feared, might be regarded, in some cases at any rate, as a kind of premium to get rid of a child. There was a provision that a lump sum

might be paid by the father of a child—otherwise that individual might manage to escape free; but that money would have to be paid into a departmental fund, and the payments from that fund to the nurses would only be made weekly. For the first year of a child's life—which was regarded as being the most critical—the sum of not less than 10s per week must be paid, and then it might be reduced subsequently to 7s per week. Increased medical supervision was also provided for. In connection with the Neglected Children's department there were medical officers in all the suburbs who periodically visited the children. An arrangement would be made under which the foster-mothers would be enabled to take the infants to these doctors if they required medical attention. That would cost about £1000 per annum. Protected infant life would be raised from two years to five years. Particulars in regard to the parentage of a child would in the future be kept by the department, and not by the nurse, and would not be made known to prying people, except with the consent of the Minister of the department. It might of course happen that in future years a child might be desirous of learning something of his or her parentage, and this provision would allow of the information being given. It would not be necessary in every case of a death of a boarded-out child to hold a statutory inquest, as the certificate of the doctor who attended the child, as previously arranged for, would be sufficient. The establishment of a maternity home would also be provided for, so that in certain cases it would not be necessary to separate the mother from the child. Power was given in the bill for the making of regulations in regard to the care and management of the infants, and also their food supply. He hoped the measure would receive sympathetic treatment, as he believed it would be a great advance on the present law. After discussion the second reading was agreed to. In committee, on clause 6, giving power to the Governor-in-Council to establish maternity homes and infant asylums, Mr. Murray urged that epileptic children should be separated from others, and should remain wards of the State to the end of the chapter. No woman suffering from any disease should be allowed to nurse an infant. In clause 9, the Chief Secretary amended the provision for weekly payments of not less than 10s for boarded-out infants by making the 10s apply to infants under 12 months and making the minimum 7s for infants over 12 months, the maximum in any case not to exceed 40s. The remaining clauses of the bill were agreed to, a qualification being inserted in clause 17, which exempts certain charitable institutions receiving infants from some of the provisions of the bill. This was made to read that such institutions should be exempted "upon the approval of the Minister."

Description of Patent Medicines.—In the House of Representatives on October 18th Mr. Thomas (Vic.) asked the Minister for Customs whether his attention had been drawn to a cablegram published in the newspapers stating that the London Chamber of Commerce had expressed the hope that the British Government would protest against the regulations under the Australian Commerce Act which compelled the disclosure of the ingredients of proprietary articles. He also desired to know whether the vested interests that were at work in London explained the reason for the hesitation of the Government in introducing a bill to give effect to the proposal to compel importers to fully describe the component parts of patent medicines on the boxes and labels, which had been promised for such a long time? The Minister for Customs replied that the Government was not hesitating in regard to this matter, and a bill was now being prepared.

Navigation Bill.—In the lengthy Navigation Bill introduced into the Senate recently are some clauses bearing on medical matters. Under these the Minister may appoint medical inspectors of seamen, and fix their remuneration. An inspector will, on application, certify whether seamen are fit for duty at sea. A scale of medicines or medical stores may be issued by the Minister. If a captain, seaman, or apprentice receives an injury or contracts a disease not caused by his misbehaviour, the medical advice and attendance, and the expense of his maintenance, must be defrayed by the owner, without deduction. Maintenance must be paid for if the master or men are temporarily removed from a ship. Every foreign-going ship having 100 persons or more on board must carry a medical man, and every foreign-going ship with more than 10 and fewer than 100, must carry a person qualified to render first aid.

The New Norfolk Asylum, Tasmania.—In our last issue on page 544 we published a note on a reference in the Tasmanian House of Assembly to some complaints of gross ill-treatment at this institution. In the House of Assembly in Hobart on October 23rd, whilst Committee of Supply were considering the annual vote of £18,706 for the Hospital for the Insane, New Norfolk, the Premier made his report on his investigations into charges of cruelty to patients at the institution, introduced some weeks ago by Mr. Ogden, based on a letter written by an ex-patient named Chas. Matthew Bird. The following is a summary of the results and conclusions of the Premier's investigations, which we take from the *Tasmanian Mercury* of October 24th:—**Result of Inquiry.**—As the result of my investigation, I have necessarily become most intimately acquainted with the inner working of the hospital and of its further requirements. Since the present Government came into office very important structural improvements have been carried out, the principal items being—(a) The erection and equipment of a central kitchen. (b) The erection of over 20 additional single rooms for female patients. (c) The provision of a new Astral boiler and an engine for running the dynamos, both of the most modern construction. Further necessary additions and alterations are now being arranged for—(a) The erection of a special building for refractory patients, including the removal and erection elsewhere of the wood yard, closets, etc., which are on the site required for the new building. (b) Conversion of old kitchen into single rooms. (c) Erection of a dining-room for nurses. (d) Removal of workshops and re-erection elsewhere. (e) Erection of additional rooms over corridor, male back division. The total cost of the work already carried out, together with that now being dealt with, will be about £15,000. Further expenditure on buildings will no doubt be required, as will be seen on reference to the report by the Royal Commissioners, on which the improvements are based, but it is found in practice that the amount of work which may be carried on in any one year is necessarily limited, because of the serious difficulties that would be experienced in connection with the management of the patients if building operations were going on simultaneously in several centres of the institution. The new building for refractory patients will be started as soon as practicable, the plans and specifications being now completed. When this building is available it will be possible to effect a very great and much needed improvement in the direction of classification of patients. I found the dietary of the attendants somewhat monotonous, and I have given the necessary instructions to remedy their grievances. I have carried into effect the promise I made to this House of shorter hours

for attendants, and I have placed upon the estimates the necessary sum to meet this want, and to provide additional annual leave for all the staff, whose duties are of such a trying character. It is a most distressing and unfortunate fact that the further accommodation from year to year is, through increase of patients, scarcely sufficient to supply pressing needs, and Parliament must be prepared to find the funds necessary for the further requirements of the hospital as they arise. The operation of the Public Service Act in relation to attendants of the hospital has proved to be detrimental to discipline, owing to delay consequent upon the system, and I propose to take the necessary steps to exclude this class of officers from the operation of the Act, so far as discipline is concerned, in order that the medical superintendent may have restored to him the power of appointment and dismissal, which are absolutely essential in a hospital for the insane. During the inquiry it was most pleasing to me to hear of the high esteem in which Dr. Macfarlane is held by those who know the hospital for the close attention he gives to his duties, and his very humane administration. His self-sacrificing labours and his great responsibilities must necessarily affect his health, and in course of time his efficiency, unless occasional relief is afforded to him. After a service of some 30 years as assistant medical officer and medical superintendent, I think the time has arrived when such excellent service should receive its just recognition by a lengthened holiday, which would enable him to visit Europe, and there, whilst enjoying a rest from his arduous duties, visit modern European hospitals and systems. Such relief would not only fit him to resume his duties with improved health and strength, but would enable him to acquire increased knowledge which would be an advantage not only to himself but to the State generally. *Conclusion.*—In view of the evidence of such witnesses as the three clergymen whose opportunities of hearing complaints are so complete, and whose freedom of access to the hospital is quite unrestrained, the evidence of the overseer of the Public Works Department concerning what he observed during his daily visits for over 11 months, and the fact of his witnessing fights between patients, who afterwards charged the attendants with inflicting the injuries which were the result of their own actions; the complete records of the medical staff, showing the falsity of many charges made and injuries alleged; the important personal investigations by Dr. Elkington, and the scenes witnessed by myself in the female refractory division on the occasion of my last visit to the hospital, added to the positive denial by the various attendants of the charges alleged against them; the evident and unfortunate mental condition of some of the patients who have made charges, and the atrocious record of crime and unreliability of the man Morgan, it is borne to my mind, most convincingly, that the various charges are entirely without foundation, and that, instead of cruelty being practised, as alleged, there is the strongest evidence of a kind and considerate treatment of all those whose misfortune renders their detention in the hospital to be necessary. It is, of course, necessary in the case of violent patients that some force should be employed to restrain them in their frenzy; but I feel quite sure, from the evidence taken, and from my own observation, that only necessary force is used, and that kindness of treatment and consideration is meted out to the patients of all descriptions. I have endeavoured to make this inquiry as searching as possible, and I trust my efforts may meet with the approval of the House. Even more do I trust that the hospital may emerge from the cloud caused by these unfounded charges fully restored to that confidence which its proper and careful administration so

fully justifies. After considerable discussion the vote for the asylum was agreed to, and the committee proceeded to consider other votes on the estimates.

Medico-Legal and Medico-Ethical.

A Doctor Prosecuted.—According to a report in the *Melbourne Age*, at Coburg Court recently Dr. Carl P. W. Dyring, of that suburb, was charged under section 125 of the Health Act 1890 with, between January 1st, 1907, and August 27th, 1907, attending John Johnson Warr for pulmonary tuberculosis, and failing to report the case to the Board of Public Health. It was shown that the notice proclaiming pulmonary tuberculosis a dangerous infectious disease appeared in the "Government Gazette" of August 28th, 1901, and that notice to all medical men to report all cases of that disease occurring in Coburg and certain other metropolitan districts had appeared in the same publication on October 21st, 1903. The evidence showed that Dr. Dyring had attended the person gratis and had also arranged for the patient, who died on August 27th, to get medicine. Dr. Dyring admitted not having reported the case, but said he had been told by the wife of deceased that it had been reported from Ararat, from where the patient came two years ago. He thought if a case were reported twice it would upset the statistical records. Thomas Sauvan (officer of the Board of Health) swore the case had never been reported. The Bench was of opinion that a technical offence had been committed, and they imposed a fine of 10s, with 30s costs.

Fees for Medical Witnesses.—It is announced that the scale of allowances for skilled witnesses attending criminal trials at Supreme Courts, Circuit Courts, and Courts of Quarter Sessions in New South Wales has been amended as from December 2nd. From that date members of the medical profession will receive one guinea for giving skilled evidence in each case (but not to exceed two guineas a day), and one guinea a day for attendance. Where the witness does not reside in the town to which he is summoned to give evidence the allowance for attendance will be payable in respect of each day he is actually and necessarily absent from home.

HOSPITAL INTELLIGENCE.

Echuca Hospital, Victoria.—A public meeting was held in the Town Hall recently for the purpose of devising the best means of raising the £200 towards the hospital building fund, which is required to secure the grant of £600 promised by the Premier. A resolution was unanimously carried that a direct appeal be made to the public for the necessary amount. The proposed improvements are estimated to cost £1650. An amount of £200 is to be spent on the male ward, £100 on the female ward, £200 for a steam laundry, £400 for a new operating theatre, and £750 for nurses' quarters. The committee has a sum of £500 in hand. Added to this the £600 Government grant and £200 special collection, a total of £1300 is made, so that after carrying out £1650 worth of improvements the committee would have a debit balance of £350.

Diamantina Hospital, South Brisbane.—Some time ago a deputation pressed on the Government the advisableness of providing separate accommodation for epileptics at the Diamantina Hospital for Chronic Diseases at South Brisbane. Tenders have now been

received by the Public Works Department for a ward for female epileptics. The ward will hold 16 beds, and the building will be of wood, in conformity with the other buildings of the institution. The lowest tender received was £1194. Tenders are also to be called for a female consumptive ward, the building to contain four beds; also for a porter's lodge and additions to the nurses' and servants' quarters. The latter additions are due to the necessity of increasing the staff of the institution.

Hobart General Hospital.—At the monthly meeting of the board of management of the Hobart General Hospital held last month, the visiting committee reported that the daily number of patients under treatment was still above the average of former years, but the general health of the nursing staff continued good. The finance committee reported that the fees collected during the month amounted to £88 16s 2d, and on October 1st the sum of £439 16s 3d remained on the books for collection. During the month 249 patients were treated in the hospital. Of this number 129 were discharged and 12 died, leaving in the institution on October 1st, 64 males and 44 females. Of the 249 in-patients, 118 came from country districts, 77 were paying patients, and 172 were admitted free. The daily average number of occupied beds was 119, as compared with 105 last year, and 69 during September, 1906. In the out-patients' department, 167 new cases were treated; casualties, 23; total attendances, 679. The committee desired to acknowledge, with very many thanks, the receipt of £1 14s 1d, being amount of donations kindly collected by the shipping master (Captain Thomas C. Herbert). The building committee reported having fully considered the draft of the conditions governing the competitive designs for the proposed hospital for children, and as soon as these conditions are printed for the information of intending competitors, applications for designs will be advertised for. It was recommended that the date for receiving designs be January 31st, 1908.

Launceston Hospital.—At the monthly meeting of the board of management of the General hospital the finance committee reported that £162 18s was received in fees for September, while for the past three months the receipts from that source amounted to £504 19s 5d, as against £456 7s 11d for the corresponding period last year. During September 125 patients were admitted, 129 discharged, and three died. The visiting committee reported that the movement for raising funds for the children's cottage hospital was being extensively supported by the public. Steps were being taken to enlist the support of the children of the North of Tasmania, in order that they might, if possible, raise the greater part of the money required. In reply to advertisements calling for plans for the proposed dental and out-patients' department, three designs had been sent in, and they were referred to the visiting and finance committees. The chairman stated that the cost of the new operating theatre and suite of rooms, new fireproof staircase, new lift, and dining-hall for convalescent patients would be about £4427. Payments to the extent of £2493 had already been made, leaving a balance of £1934. There were £230 in hand, and £1700 would have to be provided for.

Adelaide Hospital.—At the meeting of the board of management of the Adelaide Hospital, held last month, the board's attention was drawn by the secretary to the fact that an erroneous rumour was gaining currency to the effect that the bequest of the late Thomas Martin to the hospital would render further contributions to the institution unnecessary.

He pointed out that as this money was available only for buildings, etc., in accordance with Act dealing with the Commissioners of Charities, under which this money would be dealt with, the general maintenance and support of the institution would not be affected by this legacy, in consequence of which the practical sympathy of the public was still needed. The medical report for past fortnight showed that there had been 120 patients admitted, 124 discharged, and 12 died, including 2 at the Consumptive Home, leaving at present now in the hospital 210, in the Consumptive Home 47, and in the infectious diseases block 2. There had been 764 out-patients treated, of whom 147 were new. The causes of death had been—Cerebral spinal fever, chronic Bright's disease, uræmia, phthisis (3), tumour of brain, perforated ulcer, cerebral endoarteritis, fractured skull, nephritis, carcinoma of rectum.

Queen Victoria Hospital, Launceston.—The annual report of the committee of the Queen Victoria Hospital for Women contained the following:—"During the last ten years the work has steadily increased, and where the first annual report announced 52 patients, with 43 births, as the year's work, we now have to report 215 patients as having been admitted to the hospital during the past year, and the number of births has been 215, namely, 118 male and 97 female infants. A considerable number of free cases have been treated; others have paid only such fees as their circumstances permitted. Ten district cases have been attended at their own homes and eight surgical cases have been treated in the hospital. Notwithstanding the cost of alterations to premises the financial position has somewhat improved; the overdraft now standing to debit at the bank being only £49 5s 6d, as against £112 15s 11d last year; while the credit to the building fund has increased from £21 8s 6d to £53 4s. The balance-sheet showed receipts to have been £1119 4s 3d, and the expenditure £1055 13s 10d.

Coast Hospital, Sydney.—During September 293 patients were admitted to the Coast Hospital. Of these, 174 were general cases, and 119 were suffering from infectious diseases, consisting of scarlet fever 37, measles 40, diphtheria 25, erysipelas 8, and enteric fever 9. The number of patients discharged was 253, of whom 231 were cured, 18 relieved, and 4 unrelieved. There were 21 deaths. The number remaining in hospital at the end of the month was 348. Of these, 228 were general cases and 120 infectious, consisting of scarlet fever 48, measles 28, measles and pertussis 4, diphtheria 31, erysipelas 8, and enteric fever 1. The daily average number for the month was 335.7. The number of beds in the hospital is 330, and the month's average is the highest reached this year; 130 patients were removed from the city to the Coast Hospital by ambulance, and 14 to the Asylum for the Infirm. Three patients were transferred to convalescent homes.

St. Vincent's Hospital, Melbourne.—An organisation has been established called the League of Help, for the liquidation of the debt of £24,000 still remaining on St. Vincent's Hospital. It is proposed to enrol 2000 members. Each person or family enrolled undertakes to collect or donate 5s a month for five years. Efforts are being made to enrol members, and the returns from the "League of Help" average £120 a month, but this amount only meets the interest, and for the organisation to be a success a more generous co-operation is necessary. Two thousand in-patients have been treated during the past 15 months, and 10,000 out-patients.

St. Arnaud Hospital, Victoria.—A movement has been initiated to establish an operating theatre at the St. Arnaud Hospital. The committee of the institution has set aside £400 towards the fund, and the Premier has promised a grant of £300, conditionally on a similar amount being raised in the district. A total sum of about £1000 will be required for the work. The Kara Kara shire council has voted £50 towards the fund.

Victorian Homes for Aged and Infirm.—The annual report of the visiting medical officer, Dr. Louis Henry, states that for the year ending June 30th, 1907, the daily average number of patients under medical treatment was: Males 255½, females 94, children 14—total, 351. Total number of deaths for the year ending June 30th, 1907, was 90. It will be interesting to mention that a male inmate died quite recently at the age of 104 years, and that we have a female inmate well and active at the age of 102 years. There are over 20 consumptives in very advanced stages in the homes at present. Every care is adopted in ensuring safety from infection to the other inmates; but as no special accommodation or attendance can be made available for such cases, the increase of this class of inmate is not desirable. The consumptives among the inmates of the homes constitute 7 per cent. of those under medical treatment. In view of the fact that there is no alternative but to receive all kinds of consumptive cases, the advisability of making provision for such cases by applying to the Government to supply the necessary funds, and to grant a piece of ground for the erection of a suitable ward is urged. Attention must also be drawn to the old age and helplessness of the present inmates, and the difficulty which is experienced in selecting wardsmen and wardswomen from the inmates themselves. It will be very shortly imperative, in order to secure effective nursing, to employ skilled attendants for the hospital wards. Average age of males deceased, 72 years; females, 75 years. The total admissions during the year were 499. The daily average number of inmates was 756. At present there are 753 inmates in the homes. The total number of patients treated during the year was 1288. The number discharged as cured or relieved during the year was 445.

Victorian Eye and Ear Hospital.—A deputation consisting of the committee of management of the Eye and Ear Hospital, Eastern Hill, waited upon the Premier recently to ask for a grant of £1500 towards building expenses. The deputation was introduced by the Lord Mayor. The institution was the fourth largest of its kind, and the finest equipped in the world. The Premier had kindly assisted the committee in obtaining additional land from the Metropolitan Board of Works, and he thought they had made a bargain. The institution was a national one, receiving patients from all parts of the Commonwealth, but was badly in need of more accommodation. It was pointed out that last year the hospital had 750 in-patients and only 60 beds. Of the out-patients, 4479 came from the city, 963 from the country, 65 from other States, 153 from other charities, and there were 65 wards of the State. Dr. J. E. Barrett said the hospital had been condemned by the Health Board for overcrowding. The new building would cost £4000, and if the Premier would find the £1500 the committee would raise the rest. The Premier promised the deputation £1500 if it would raise £3000, and to advance £500 of that as soon as tenders were called.

MEDICAL NOTES.

Charitable Donations and Bequests.—The annual collections in aid of the Geelong Hospital resulted in a total of £309 11s 4½d being obtained, as against £282 12s 6d last year.

Tropical Diseases.—In February next the annual meeting of the Philippine Islands Medical Association is to be held at Manila. Official delegates, as well as private professional and scientific men from Japan, China, India, Hongkong, Straits Settlements, and many other countries have been invited to attend the meeting. A communication has been received from the Governor-General of the Philippines, through the Consul-General of the United States in Melbourne, inviting the Commonwealth of Australia to be officially represented.

Sydney District Nursing Association.—At the annual meeting held last month the report showed that the general fund is in credit at the bank £1190 4s; the home building fund is in debt £789 18s. Comparing the results with last year's figures, the receipts to the general fund, amounting to £614 10s 7d, are £169 less this year, there having been a decrease in subscriptions and donations to the central fund and branches, with the exception of Surry Hills, which has provided £24 more. The expenditure was £807 11s 2d. The total visits by the nursing staff were 22,839. An appeal was made for increased subscriptions to enable the work to be extended. During the year the Central Home for the nurses had been established. The purchase of 112 Surrey-street, Darlinghurst, was successfully negotiated by the hon. treasurer, Mr. C. W. Gaden. The debt on the home on entering into possession was £1485 19s 9d. This was at once reduced by subscriptions, which Lady Fanshaw initiated with a generous donation of £50. The total subscriptions amounted to £696 1s 9d.

Transposition of the Viscera.—A case of this nature has been discovered recently in Queenstown, Tasmania. A man, aged 25, died at Queenstown Hospital of Bright's disease. A post-mortem examination revealed a complete reversion of the whole of the viscera. The heart was on the right side, the liver was on the left side, the stomach was quite reversed, the large blood vessels ran down the opposite side to where always found, the intestines were reversed, the cæcum and appendix being on the left side, the rectum ran down the right side, and the spleen was on the left side. Dr. A. J. Hamilton, who had been attending the deceased for some time, and had known him for many years, states that all the functions of the body were quite natural, and that the reversion of the organs in no way hastened death. The deceased, when in life, was of a cheerful disposition, and for the last five years was employed as a boilermaker in the Mount Lyell Company's machine shops. He suffered frequently from rheumatic gout before the disease which carried him off set in.

Melbourne Hospital Sunday Fund.—The thirty-fourth annual report of the committee of management and distribution of the Hospital Saturday and Sunday Fund, as presented to a meeting of subscribers held at the Town Hall October 4th, under the presidency of the Lord Mayor, showed that the amount at the disposal of the committee during the year was £8084, of which £4939 was contributed on Hospital Sunday by church congregations, etc., while £3071 was handed in on Hospital Saturday by office, shop and factory employees, etc. The aggregate showed a falling off as compared with the previous term of £224. Of the

total £7552 had been distributed to the charities, £327 expended on printing, advertising, etc., and £204 carried forward. The subscriptions to the Saturday fund were the largest on record, and the committee hoped to extend the principle of systematic contributing of small amounts to Government departments. The Lord Mayor, in moving the adoption of the report and financial statement, expressed a hope that difficulties which had arisen in connection with the distribution of the fund and the question of representation would be speedily overcome. Out of £8000 collected, only £300 had been absorbed in expenses. In connection with the motion—"That the medical charities to be assisted from the fund for this year be the same as last year," Mr. T. Harlin moved that the following proviso be added:—"Provided that the authorities of the institutions named above agree to accept money contributed for Hospital Saturday and Sunday Fund only at the hands of the Hospital Saturday and Sunday Committee; and provided further that it be an instruction to the Hospital Saturday and Sunday committee to omit from the preceding list the name of any institution the management of which shall refuse to be bound, as directed in the preceding clause." The motion was carried.

PERSONAL ITEMS.

Dr. Ashwell has resigned his practice at Howell, N.S.W., owing to ill-health.

Dr. Bruce, late of Candelo, N.S.W., has succeeded to the practice of Dr. Baber at Enmore, Sydney.

Dr. Baber, late of Enmore, has left for New Zealand to take up practice there.

Dr. H. P. Metcalfe, of Norfolk Island, returned from a trip to England by the R.M.S. *Orontes*, and proceeded to Norfolk Island on November 1st.

Dr. C. L. Handcock, formerly of Goulburn, N.S.W., has succeeded to the practice of Dr. Clark at Ashburton, New Zealand.

Dr. Herman Lawrence, who has recently been attending a medical congress in New York, arrived in Melbourne by the Sydney express.

Dr. W. S. Byrne, of Brisbane, has left on a trip to England.

Dr. A. H. Bennett has left Adelaide for New Zealand on a holiday tour.

Dr. Mabel G. S. Crutchfield, late of Boulia, Queensland, has removed to Hawthorn, Victoria.

A party of German scientists, headed by Dr. Stephan, a staff surgeon in the German Navy, left Sydney by the N.D.L. liner *Prinz Sigismund*, bound for New Guinea on a scientific expedition. Dr. Stephan first began scientific research in the Bismarck Archipelago in 1903.

Dr. N. A. W. Conolly, of Sydney, was lately sued for £100 damages sustained by plaintiff through a fall from his bicycle, stated to have been caused by a motor-bicycle ridden by defendant. Evidence went to prove that the motor-bicycle did not touch plaintiff's machine, and Dr. Conolly obtained the verdict.

Dr. McGowan, of Ballarat, Victoria, recently dislocated his ankle by a fall from his dog-cart.

Dr. R. R. S. Mackinnon was the recipient of a presentation from the members of the North Sydney

District Football Club at a smoke concert held in the Masonic Hall, North Sydney, on October 28th. The presentation took the form of a photographic book containing 116 pictures, comprising officials, members, and teams, past and present, and was in recognition of Dr. Mackinnon's services to the club as hon. medical officer during the past three years.

Dr. C. Hardcastle, formerly of Hillgrove, N.S.W., has been travelling extensively for some considerable time. Dr. Hardcastle's address now is Macquarie-street, Hobart.

Dr. Donald Wallace has been appointed acting medical superintendent at the Coast Hospital, Little Bay, Sydney, pending a permanent appointment, to fill the vacancy caused by the death of Dr. A. G. Henry.

Dr. Ralph Worrall left England on November 1st by the *Omrah*, and is expected in Sydney on December 16th.

Dr. John Stuart Campbell, formerly of Cavendish-street, Stanmore, has removed to the hospital, Perth, W.A., where his engagement lasts 12 months.

Dr. Shaw, who has been transferred to the position of deputy medical officer at the Kew Asylum for the Insane, was entertained by the staff of the Ararat Asylum on November 9th.

Dr. Winterbottom, who has been practising at King Island, Tasmania, intends returning to London.

Dr. Chenery, who has been acting for Dr. W. C. Faulkner during the past seven months at Waratah, Tasmania, was tendered a banquet on October 10th. Dr. Faulkner has returned from a trip to Great Britain and has resumed practice at Waratah. Dr. Chenery has succeeded to the practice of Dr. T. B. Lewers at Sale, Gippsland, Victoria.

Dr. John Spark, who has been a resident of Katoomba (N.S.W.) for the past 21 years, has recently been presented with a purse of sovereigns, and similar gifts from the residents of Wentworth Falls and Blackheath. Dr. Spark has been seriously ill during the past few months.

Dr. David Horn, who has recently returned from Aberdeen, where he took his diploma with honours, is about to join Dr. N. P. Elliott, of Toowoomba, Queensland, in partnership; later, Dr. Alec Horn, on his return, will also practice at Toowoomba.

Dr. Conroy, medical officer at the Sunbury Hospital for the Insane, Victoria, has resigned. He is going into private practice at Sydney.

Dr. Park has left Tatura, Victoria, to take charge of the Friendly Societies' Institute at Bendigo, Victoria.

Dr. D. D. Gibson, who has lately been at Dubbo, N.S.W., has removed to 8 L'Avenue, Newtown, Sydney.

In the September issue of the A.M. GAZETTE appeared a notice to the effect that Dr. Lloyd-Jones had disposed of his practice at Guyra, N.S.W. This was inaccurate, and we much regret that such an error should have appeared.

Dr. Clubbe, who has been on a visit to Europe and America, returned to Sydney on November 4th.

Dr. Cochrane Potts and Dr. Hayes are new arrivals at Waimate, New Zealand. Both have commenced practice there.

Dr. Collins, late of Auckland, has commenced practice at Charlestown, N.Z.

Dr. Anderson, of Fremantle, who represented Western Australia at the Berlin International Congress on Hygiene, has returned. Dr. Anderson ordered for the Fremantle Hospital a Röntgen ray apparatus superior to anything in Australia.

MEDICAL APPOINTMENTS.

VICTORIA.

Harkness, Edward, L.R.C.P., to be Public Vaccinator for South-Eastern District.

The undermentioned persons to be Officers of Health for the district set opposite their names, viz.:

Calhoun, James, M.B., northern portion of the shire of Donald.
Langmore, Percy Vance, M.B., shire of Berwick.
Helwig, Samuel Bernard, M.D., shire of Berwick.
Phillips, George Gordon Owen, L.R.C.P., shire of Wycheproof, vice James Andrew Neptune Scott, M.D., resigned.

WESTERN AUSTRALIA.

The following appointments have been made to the Perth Public Hospital:—

Ramsay, J. E., M.B. (Lond.), Assistant Surgeon, to be Surgeon, vice E. E. Newton, resigned.
Nyulasy, A. J., L.R.C.P., L.R.C.S. (Edin.), L.F.P.S. (Glasg.), 1890; M.R.C.S. (Eng.), L.R.C.P. (Lond.), 1891, Assistant Gynaecologist, to be Gynaecologist, vice H. E. Harvey, resigned.
Gillespie, L.T., M.B., B.S. (Melb.), Assistant Surgeon, to be Acting Surgeon during the absence on leave of W. Trethowan.
Cuthbert, John, L.R.C.S. (Irel.), L.R.C.P. (Edin.), to be Assistant Surgeon.
Ambrose, T., M.B., M.S. (Syd.), Assistant Physician, to be also temporary Assistant Surgeon.

TASMANIA.

Davies, John, to be Port Health Officer at Beauty Point, vice C. M. Deane, resigned.
Walker, W. J. A., to be Port Health Officer for Ulverstone, vice G. G. Stuart, resigned.

NEW ZEALAND.

Handcock, Charles Lancelot, M.B., M.S. (Syd.), 1894, to be a Public Vaccinator for the district of Ashburton, vice Dr. Clark, resigned.

PROCEEDINGS OF AUSTRALASIAN MEDICAL BOARDS.

The following persons have been registered as legally qualified Medical Practitioners in their respective States, viz.:

NEW SOUTH WALES.

Foley, John Matthew Galwey, L.R.C.P. (Irel.), 1907; L.R.C.S. (Irel.), 1907.
Muir, William Charles Crawford, M.B., M.S. (Glas.), 1885.
Booth-Clarkson, James, L.R.C.P. (Edin.), 1881; L.R.C.S. (Edin.), 1881; D.P.H. (Camb.), 1905.

VICTORIA.

Bevan, Sibyl Caridwen, L.R.C.P. & S. (Edin.), 1906.
Haines, Arthur, M.R.C.S. (Eng.), 1892; L.R.C.P. (Lond.), 1894.

TASMANIA.

Kempster, Christopher Richard, M.R.C.S. (Eng.), 1896; L.R.C.P. (Lond.), 1896.

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

BIRTHS AND DEATH.

BIRTHS.

BLAKIE.—October 23rd, at Union-road, Surrey Hills, Melbourne, the wife of J. L. Blakie, L.R.C.P., M.R.C.S. (Eng.)—a son.
COVERNTON.—November 4th, at Gawler, S.A., the wife of Dr. Hugh Covernton—a son.
MORTON.—October 25th, at "Glan-y-Mor," Manor-street, Middle Brighton, Victoria, the wife of Dr. Walter Morton—a daughter.
HARE.—October 10th, at Upper Norwood, London, the wife of Dr. Francis E. Hare, of Brisbane—a son.

ROSS.—October 2nd, at her residence, Crathie, Boggabri, N.S.W., the wife of Dr. A. P. Ross—a daughter.

SHELLSHEAR.—September 16th, at Warwick-crescent, Maida Vale, London West, to Dr. and Mrs. Cyril Shellshear—a son (stillborn).

SKEY.—October 20th, at Lorne, Darling Point, Sydney, the wife of Staff-Surgeon A. H. Skey, R.N.—a son.

DEATH.

SHELLSHEAR.—September 16th, at Warwick-crescent, Maida Vale, London West, Gwendoline Jane, dearly loved wife of Dr. Cyril Shellshear, and elder daughter of Mr. and Mrs. C. H. Broughton, The Briars, Summer Hill, Sydney.

LETTERS AND OTHER COMMUNICATIONS RECEIVED FROM CORRESPONDENTS.

Dr. B. B. Ham, Brisbane; Mr. G. T. Taylor, Hobart; Dr. J. Lockhart Gibson, Brisbane; Messrs. W. B. Saunders & Co., Philadelphia; The Editor, "Laryngoscope," St. Louis, Mo.; Mr. L. Bruck, Sydney; Dr. Fourness Barrington, Sydney; Sec. General International Congress on Tuberculosis, Washington, D.C.; E. A. Nevin, Esq., M.D., St. Lawrence State Hospital, New York; South British Insurance Co., Sydney; United Typewriter Supply Co., Sydney; Messrs. Denyer Bros., Sydney; Messrs. Angus & Robertson, Sydney; Messrs. Burroughs, Wellcome and Co., Sydney; the Hon. Treasurer Victorian Branch of the B.M.A.; Dr. A. Cheney, Sale, Victoria; Dr. Lloyd-Jones, Guyra, N.S.W.; Messrs. Felton, Grimwade & Co., Melbourne; Mr. J. F. Wiesener, Sydney; Messrs. Collins & Co., Sydney; Dr. W. R. Fox, Melbourne; Dr. R. Steer Bowker, Sydney; Dr. L. Redmond, Charters Towers; Dr. E. Angus Johnson, Adelaide; Dr. L. Herschel Harris, Sydney; Messrs. Donald Ross, Sydney; Messrs. Rose & Co., Sydney; Messrs. Parke, Davis & Co., Sydney; Reuter's Telegram Co., Ltd., Sydney; Dr. Mabel G. S. Crutchfield, Hawthorn, Victoria; Dr. Nasmith, Sydney; Dr. T. Fiaschi, Sydney; Dr. Sinclair Gillies, Sydney; Dr. C. S. Willis, Sydney; Denver Chemical Manufacturing Co., Sydney; the Fresh Food and Ice Company, Sydney; South British Fire and Marine Insurance Co., Sydney; Major W. D. Sutherland, c/o Messrs. H. S. King & Co., 9 Pall Mall, London; the Seltzogene Patent Charges Co., St. Helens, Lancashire; Record Publishing Co., St. George's street, Capetown; Messrs. Baillière, Tindall & Cox, London.

EDITORIAL NOTICE.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office, 121 Bathurst-street, Sydney.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

Local papers containing reports or news paragraphs should be marked and addressed "To the Editor." We cannot undertake to return MSS. not used.

ORAL SEPSIS—"EUMENTHOL JUJUBES" (HUDSON)
MADE IN AUSTRALIA.

A Gum Pastille containing the active constituents of well-known Antiseptics:—Eucalyptus Globulus (a well-rectified oil, free from Aldehydes, especially Valerio Aldehyde, which make themselves unpleasantly noticeable in crude oils by their tendency to produce coughing), Thymus Vulg., Pinus Sylvestris, Mentha Arv., with Benzo-borate of Sodium, etc. They exhibit the antiseptic properties in a fragrant and efficient form. Non-coagulant, antiseptic and prophylactic, reducing sensibility of mucous membrane. *The Lancet* says:—"In the experiments tried the Jujube proved to be as effective bactericidally as is creosote." *The Practitioner* says:—"Are also useful in tonsillitis, pharyngitis and similar ailments."

AUSTRALASIAN MEDICAL GAZETTE

No. 315.

SYDNEY, DECEMBER 20TH, 1907.

VOL. XXVI., No. 12.

MEDICAL MATTERS IN VICTORIA.

An Address delivered at the annual meeting of the British Medical Association (Victorian Branch) and Medical Society of Victoria.

By Professor H. B. Allen, M.D., Retiring President.

A YEAR has now gone by since the Victorian Branch of the British Medical Association and the Medical Society of Victoria entered into close union one with another, and a desire has been expressed that, at the close of my term of office as the first president of the united Societies, I should relate briefly the history of the amalgamation.

HISTORY OF THE ACT OF UNION.

Long ago a scheme for union was proposed with fair prospects of success; but it ended in failure, and years had to pass while experience of divided forces and divided representation prepared the profession for another attempt under happier auspices. Ethical trouble and consequent disunion in the Branch led Dr. Henry about the middle of 1904 to interpose as a mediator in the Branch, and to express the hope that adjustment of difficulties in the Branch might lead on to union with kindred Societies in Victoria. The immediate negotiations, however, proved fruitless. In March, 1905, after representatives of the Faculty of Medicine and of the Branch had met repeatedly concerning the Medical Naval Reserve, Dr. W. B. Vance, as secretary to the Branch, reported to the Council that there was some possibility of bringing about an amalgamation between the Branch and the Medical Society, and he received permission from the Branch Council to write to the Committee of the Society suggesting that delegates from the Society and the Branch should meet to consider and report on a scheme for amalgamation. The committee, however, contented itself with receiving the letter. In October, 1905, Professor Osborne also made unavailing suggestions for conciliation within the Branch.

At the seventh session of the Australasian Medical Congress in Adelaide in September, 1905, it was resolved that a committee be appointed consisting of representatives from

each State, to consider the best means to amalgamate the various medical associations throughout Australasia and New Zealand. The Branches of the British Medical Association, the Medical Society of Victoria, the Medical Section of the Royal Society of Tasmania, and the various Medical Defence Associations were asked to appoint two delegates each, the committee to report at the Congress in Melbourne in 1908. The committee would have been free to discuss whether amalgamation should be effected under the British Medical Association or should take the form of an Australasian Medical Association. In December, the president of the Medical Society of Victoria (Dr. A. J. Wood) and the senior vice-president (Dr. M. U. O'Sullivan) were appointed to represent the Society on this committee. In consequence of the attitude of the New South Wales Branch of the British Medical Association, which was unwilling to take part in any movement in which separation from the parent Association might be discussed, this committee never assembled.

At the annual meeting of the Medical Society on January 10th, 1906, the retiring president (Dr. A. J. Wood) reviewed, in his address, the history of the Medical Society, which was then completing its jubilee of 50 years. He referred to the frequent friendly conferences for various purposes between representatives of the Society, the Branch and the Medical Defence Association, and he concluded by a definite proposal that the Branch should elect all the members of the Medical Society to be members of the Branch; that on a given date the two Societies should declare all offices vacant; that at a meeting of the two Societies a new Council should be elected; and that the hall and library of the Society and the funds of the Society and Branch should become the common property of all. On March 1st, 1906, the committee of the Society received a letter from the secretary of the Victorian Branch, stating that the Branch had determined not to appoint delegates under the scheme proposed by the Medical Congress; that the Branch was strongly in favour of amalgamation, but thought that, as far as Victoria was concerned

it was preferable for the Societies concerned to appoint delegates to consider the matter direct. He referred to the retiring address of Dr. A. J. Wood, and intimated that if the Society would appoint delegates to discuss the matter the Branch would do likewise. Delegates were accordingly appointed; Dr. M. U. O'Sullivan, Dr. Stawell and Dr. A. J. Wood representing the Society, and Dr. Cuscaden, Dr. Joske and Dr. W. B. Vance representing the Branch. A scheme was adopted by the delegates, under which the Society and the Branch would be completely amalgamated under the title of the Victorian Branch of the British Medical Association, the Branch to appoint as trustees for all property held by the Society the present trustees of that Society, and to be responsible for all debts and obligations of the Society. [See minutes of committee of Society for May 31st, 1906.] This proposal was generally approved by the Branch, but the committee of the Society held a special meeting at which the trustees were invited to attend. Professor Allen, as one of the trustees, explained that the trustees were appointed by the Governor-in-Council, and that without alteration of the deed of trust it was impossible to transfer the land and hall of the Society to any other body. He advocated an Act of Association, under which the Medical Society would continue to exist, and would remain (through its trustees) possessed of the land and hall, but that otherwise there should be identity of membership and officers in the Society and the Branch, the union being made adequately firm, but with provision for separation if in the future a substantial majority so desired.

The committee appointed the president (Dr. O'Sullivan), Professor Allen, and Drs. Jamieson, Stawell and Mollison a sub-committee to draft an amended scheme of association, to enter into communication with the Branch Council, and to report to the committee, with power to take legal advice at any stage. The Council of the Branch appointed its former delegates, together with Dr. Willis and Dr. Bryant. The Society and Branch delegates concurred in a draft deed of association, which is set out in the minutes of the committee of the Society for July 12th, 1906. Under this deed all members of the Medical Society would become members of the Branch and *vice versa*, the two Societies retaining their own existence, but with rules, office-bearers, members and meetings in common, the land, building, library, etc., remaining vested in

trustees for the Medical Society of Victoria, with provision for separation of the Society and the Branch by the vote of a two-thirds majority, confirmed by a similar majority on referendum. The matter was then referred for legal advice. The solicitors chosen by mutual consent (Messrs. Malleson, England and Stewart) advised that the Medical Society must preserve a more substantive life, with its own meetings, its own minutes, its own subscription, as otherwise the grant of land for the hall would be endangered; that it was unwise to apply for any alteration of the deed of grant; and, further, that action should be by alteration of the rules of Branch and of Society, and not by deed. Thereupon new codes of rules were prepared by the delegates for Branch and Society, the rules being kept as far as possible in identical terms, preserving the separate life of the Medical Society in the form indicated by the solicitors, with subscription to the Branch and subscription to the Society, but with identity of members, officers, policy and administration. All members of the Branch were to be, and to continue to be, members of the Society, and *vice versa*. As far as possible the rules of the Branch were used as the model in drafting the new codes. The trustees of the Society appointed by the Governor-in-Council remained in charge of the land, buildings, library, etc., and were accepted as the trustees of the Branch. As a pledge of permanence, it was resolved that, while ordinary rules might be altered by a majority of members at a special meeting, certain rules (relating to trustees, to unity of membership, and to community of meetings, elections and other actions) should not be altered except by resolution of a two-thirds majority at a special meeting, confirmed by a similar majority on referendum. The choice of the local organ of the associated societies was to be left to the new Council.

These codes of rules, with a draft of the procedure necessary to carry the union into effect, were submitted to the Council of the Branch and the Committee of the Society, and were adopted with slight amendment, and were provisionally approved by the Branch and by the Society. On October 2nd, 1906, a copy of the codes was sent by Dr. Vance to the Central Council of the British Medical Association for approval, with the request that if the codes were approved a cable message to that effect should be forwarded. At the end of November Dr. Vance

cabled asking for a reply concerning the amalgamation conditions. The reply referred only to a letter sent from London on October 26th. Dr. Vance cabled again: "Do you confirm agreement contained letter October 2nd?" The reply, received on December 1st, was as follows:—"Necessary before election sign promise abide regulations. Otherwise they confirm agreement. Explanation impossible by telegram." It was agreed by committee and Council that this cable was sufficient authority to proceed. Accordingly, on December 19th, 1906, in separate rooms in the Medical Society's Hall, a special meeting of the Society and a special meeting of the Branch were held, at which the new codes of rules were adopted, with provision that the usual declaration must be signed before election of any member of the Victorian Branch of the British Medical Association. To relieve doubts, all members of the Branch were formally elected members of the Society, and after signing the declaration prescribed by the British Medical Association, all members of the Society were formally elected members of the Branch. Office-bearers of the combined Societies were duly nominated. On Friday, January 4th, the annual meetings of the Society and of the Branch were held, and officers were elected by ballot in accordance with the rules, and the election was affirmed for the Society and for the Branch by direct vote of those present.

THE TEMPORARY DIFFICULTY.

A subsequent letter from the Organising Secretary of the Central Council made it clear that the cable received on December 1st referred only to the mode of electing members of the Medical Society to be members of the Branch. The Branch thus remained in the position of a Branch with rules not confirmed. It was determined to proceed with all steps necessary for the administration of the Branch and Society as united. After very careful consideration, the *Intercolonial Medical Journal* was provisionally named the official organ of the Branch and Society until further arrangements should be made. Drs. Altmann, Vance and Wilkinson were appointed editors of the organ, to co-operate with Dr. Lewers, who continued to act as Editor for the publishers. I have reason to believe that the maintenance for the present of our local organ has met with the general approval of the members of the Branch and of the Society; and I desire to congratulate the editors on the high standard of excellence

that the journal has attained. Any Society might well be proud of such an organ.

THE SETTLEMENT OF THE DIFFICULTY.

Negotiations with the Central Council of the Association were continued, and the Branch had the inestimable advantage of being represented on the Central Council by Dr. Stawell during his visit to England. In these negotiations it became clear that many safeguards, which were necessary at the outset, were no longer required when membership of the Branch and of the Society had actually become identical. Precautions and provisions, without which the act of association might not have taken place, became shackles when union was complete. After many interviews between Dr. Stawell and the central authorities an amended code of rules was drafted for the Branch by the central authorities, and approved by them, in anticipation of its adoption by the Branch. With some slight but unavoidable verbal alterations this is the code which will be submitted for your adoption this evening. Corresponding alterations in the rules of the Medical Society will also be submitted for approval. The changes will make for greater freedom of action. The rules maintaining identity of membership of the Branch and Society disappear from the rules of the Branch, but are retained in those of the Society. Both sets of rules still provide for joint meetings of the Branch and of the Society, and for the joint holding of any nomination, election, ballot, or referendum. The Branch appoints no trustees, but accepts the trustees of the Society, appointed by the Governor-in-Council, as *ex-officio* members of the Council. Election of new members is to be by a simple majority of the Council and committee. No one may be elected a member of the Society who has not been elected a member of the Branch. Every candidate for admission to the Branch will be requested to apply in writing for admission to the Society. The subscriptions will remain unchanged. The Branch will be able to financially assist the Society, and the Society to assist the Branch, if occasion should arise. All rules of Branch or of Society may be altered by a majority at a special meeting, and the necessity for any referendum concerning the main articles of union will disappear. There will thus be the greatest possible freedom of action in all relations between Branch and Society, and the maintenance of union will depend on the identity of membership, the identity of officers, and the loyalty and good

feeling of all concerned. The organised medical profession of Victoria, as represented by the Branch and the Society, may therefore now go boldly forward, its future in its own hands.

THE PROPOSED NEW CHARTER.

During the year the Branch Council was invited by the Central Council to consider the draft charter for the Association, and the following suggestions were accordingly made, chiefly with a view to obtain greater freedom of action for Branches outside of the United Kingdom. Rules made by such Branches, if not inconsistent with the charter, ordinances and by-laws, should be in force unless and until disallowed by the Central Council. Ethical rules should not be valid till allowed. Such Branches should have power to acquire, hold and dispose of property, and to accept trusts not inconsistent as aforesaid. Such Branches should have power to undertake financial responsibilities, as in the conduct of a local organ or in medical defence or otherwise, such responsibilities being confined to the Branch concerned unless definitely accepted by the Central Council. Subject to the charter, ordinances and by-laws, and to special allowance by the Central Council, such Branches should have more definite power to make agreements with other medical associations outside of the United Kingdom, such as the Victorian Branch has made with the Medical Society of Victoria, so that other existing medical organisations may be brought under the banner of the British Medical Association. The Central Council should have power, on six months' notice to the Branch, to annul any such agreement, provided that the Branch has prior opportunity for making representations on the matter. Branches outside of the United Kingdom should have power to elect honorary members. All processes should be simplified by doing away with unnecessary notices to the central authorities.

A request was also made that Branches outside of the United Kingdom should have some protection in the transfer of members to them from Branches in the United Kingdom. The suggestion was made that any member of a Branch within the United Kingdom applying for transfer to a Branch not in the United Kingdom shall remain an associate member of the Branch from which he comes until the Council of the Branch to which he desires to be transferred shall have accepted him by a majority vote. It was

agreed that similar protection might be given to Branches within the United Kingdom. A schedule of the desired changes in the charter, ordinances and by-laws was prepared and forwarded to the central authorities with this memorandum.

Some such provisions as those indicated seem essential to the progress of the British Medical Association in the oversea dominions of the Empire, and the recent proceedings of the Council and of the representatives justify the hope that a liberal policy will be adopted, under which the greatest possible freedom of local action will be conceded, consistent with the maintenance of the general principles embodied in the charter, ordinances and by-laws of the Association.

A WORD FOR THE FUTURE.

The necessity for full organisation of the medical profession needs no demonstration. The average income of a medical man in Great Britain is now estimated at between £220 and £250. In Ireland matters have become so bad that a Vice-Regal Commission has been appointed, and a suggestion to establish a National Medical Service, and thus to secure an approach to adequate remuneration, with a retiring allowance, has been approved by the State Medicine Section of the Royal Academy of Medicine, and by the Irish Medical Association, and by the Council of the British Medical Association. In Austria, according to the income tax returns, as many as one-third of over 9000 registered practitioners receive less than the £50 minimum, while only 300 earn more than £500, and only 555 earn from £300 to £500. The main causes of such disastrous conditions (apart from general poverty) seem to be the abuse of public hospitals, abuse and parsimony in the medical benefit system of friendly societies and other associations, the growth of irregular district medical associations, by which medical men in distress allow themselves to be farmed, the excessive activity of the prescribing chemist, the prodigious sale of proprietary medicines, and the general prevalence of quackery. In London, it is said that in 1877 one in four of the population received free medical relief, whereas in 1904 the proportion was approximately one in two. In England and Wales the proportion of the population dying in public institutions has nearly doubled within 40 years, while in London it has more than doubled, and has reached nearly 35 per cent. This change

seems not to be due, or only partly due, to increase in total poverty, for, if different great towns are compared, the percentages are found to present very great variation. In Germany more than one-third of the population appears already to belong to sick clubs, and there is a proposal for Government to greatly extend the system. The position of the profession is not so bad in Australia, but the stress is increasing, and the conditions that make for evil are undoubtedly present. Reform should include—(1) the prevention of abuse of hospitals; (2) the limitation of medical benefits in clubs to those receiving less than a certain income; (3) the distinction between friendly societies in which medical benefits may rightly be given, and other societies in which medical benefits are merely an improper excrescence on the main objects of the Society; (4) the suppression of medical associations in which the practitioner is farmed by others; (5) the limitation of the often harmful zeal of the prescribing chemist; (6) the better regulation by law of the sale of proprietary medicines; (7) the discouragement, if not the suppression of quackery. In regard to proprietary medicines, the history of recent legislation in Germany deserves careful consideration.

Another tendency, which needs serious notice, grows out of the increasing importance of the local officer of health, and his activities in relation to the suppression of disease, the medical inspection of school children, and many other measures that in themselves are welcome and worthy of all praise. There is evidence, however, of a desire to establish a great medical service of the poor, centred in the local health officer, and more or less under his direction. This proposal, like that for a National Medical Service in Ireland, has some obvious advantages; but both belong, in my opinion, to a large category of remedies that may be worse than the disease. It seems to me that nothing can compensate for loss of independence; that any extension of bureaucratic spirit and practice in the profession must be evil, and that our escape from present and prospective mischief is to be found only in increased efficiency and in better organisation. Let us then organise, organise, organise; and, while upholding all the high traditions that have come to us from ages of beneficent activity, let us see that unfair competition and oppressive environment shall not degrade the profession of which we are proud to be members.

MURMUR DEVELOPED IN RIGHT INTERNAL MAMMARY VEIN.

By J. C. Verco, M.D., Adelaide, S.A.

A.G., *æt.* 60, was admitted into Light ward, Adelaide Hospital, under my care on December 22nd, 1906. He complained of pains in the head, and occasional attacks of giddiness and unconsciousness. He had old choroido retinitis in the right eye, in which vision was very defective, probably syphilitic. He was addicted to the use of morphia, the habit having been acquired many years before in the treatment of neuralgia. No history of over-stimulation with alcohol was obtained.

He was a very spare man, without any signs of paralysis of motion or sensation. Urine 1017, no albumen and no sugar, and averaged about 60 ounces per diem. The upper part of the sternum to the angulus Ludovici was somewhat prominent, below that slightly depressed; the ensiform cartilage curved and everted. The chest was symmetrical, clavicles directed somewhat upwards and outwards, very little expansion, but some lifting with inspiration. No distension of cervical or thoracic veins. Heart's impulse impalpable. Sternum resonant throughout, hepatic dulness at the sixth rib. Cardiac dulness at the fourth cartilage, and running vertically downwards about three-quarters of an inch to the left of the sternum to two fingers' breadth above the costal margin; the dulness not absolute. Lungs normal, except for slightly prolonged expiration, and on the left side some dry subcrepitant sounds below the nipple level, increasing towards the base, which could also be heard at the back as high as the angle of the scapula, and for a less extent at the right base. Heart sounds were somewhat weak but otherwise quite normal.

Over the ensiform cartilage was a streaming continuous noise, more marked during inspiration than expiration, and very loud on deep inspiration. It resembled somewhat the purring of a cat, or even more, the whirring noise of a gramophone preliminary to the singing of the artist. It could be traced up through the right chest along the sternum and to its right side as far as the clavicle with somewhat diminished intensity, and as far out as the mid-axillary line. It was questionably audible on the left side of the chest. Pressure on the tip of the ensiform cartilage, or on its surface, immediately abolished the murmur in the chest; as did also firm pressure on the abdominal wall on the right side,

outwards and downwards for about two and a-half inches from the middle line. Pressure over the corresponding area on the left side did not affect it. A thrill could be felt on very gentle pressure over the ensiform cartilage, continuous; it varied in its palpability at different times. When lying flat on his back without a pillow the thrill disappeared from the ensiform cartilage, but the murmur could still be heard in the chest, and abolished by pressure on the ensiform cartilage. In the erect position the murmur was heard during inspiration, but suddenly ceased at the beginning of expiration.

In the abdomen there was an obscure resistance in the epigastrium, which extended half-way to his umbilicus, and was tympanitic. No enlarged liver palpable. The abdomen was wide, and its walls were rather inelastic, but no ascitic fluid was detected. His temperature was usually about normal; the highest record was 99.6. He was treated with pot. iod. gr. v. three times a day.

He was discharged after a stay in hospital of nearly three weeks. He was re-admitted six and a-half weeks later, saying he noticed his legs had begun to swell nearly three weeks previously, and then his abdomen and scrotum. The venous hum was just as before, and there was no albuminuria. There was considerable ascites, and 330 ounces were removed by tapping. The liver margin was palpable two fingers' breadth below the costal margin, thin but hard; below that the obscure resisting mass could be felt crossing the abdomen, not very firm, rounded cylindrical, chiefly on the right side of the abdomen, and resonant.

There was no pyrexia during his second stay in the hospital. His abdomen was tapped several times, and the usual ascitic fluid was obtained. He was discharged on May 9th unimproved. Later, he went to the Home for Incurables, where he died.

Through the kindness of Dr. Cecil Corbin a post-mortem was held. The heart was found to be quite healthy and the lungs slightly emphysematous, and the left pleural cavity obliterated by old, firm adhesions. The liver was very small, weighing only 22½ oz. It was tough, but not extremely hard. It looked as though it were minutely pitted with the smallpox. This was due to a dotted membrane, which could be pulled off its surface, and left the liver capsule quite smooth. The spleen weighed 10 oz., was rather tough, and had a capsule very much thickened in

places and firmly adherent to the neighbouring parts. The kidneys and intestines were normal. The mesentery was thickened and somewhat opaque. The great omentum was very short and thick, and was turned forwards from the transverse colon, and firmly and widely attached to the abdominal wall from a point in the right iliac region, obliquely upwards and to the left, crossing the middle line in the epigastrium to about three inches to the left side. The round ligament of the liver contained a very large vein, which would easily admit a lead-pencil. After a course of some inches downwards it turned at a sharp angle in the great omentum and ran in it upwards and to the left to the abdominal wall, which it perforated, to run over the end of the ensiform cartilage. This was concave externally, and was not solid, but consisted of two round sides and a round end like the end of a wire retractor. The vein coursed over this end, and ran upwards in the middle line between the two lateral portions of the cartilage to its base, then turned to the right and crossed over its right side and dipped under the right costal cartilage to join the right internal mammary vein, which was from this point on very large, though very thin walled. The left vein was of the normal size. There was no obstruction of the hepatic vein or of the inferior vena cava.

This is the only case in which I have ever heard such a murmur. It was evidently venous, from its humming quality, and its increase during inspiration and decrease during expiration. It was diagnosed as having its origin probably in the internal mammary of the right side. The thrill felt over the ensiform cartilage, and the control of the murmur by pressure here or on its tip, seemed to suggest a vessel running into the mammary from over the cartilage; and its abolition by pressure over the right side of the abdomen, 2½ inches from the middle line downwards and outwards, indicated the course of the vein as coming from the liver side, and suggested some relation with this organ; but during his first stay in hospital there was no ascites, no jaundice, and nothing to suggest hepatic disease, so that cirrhosis of the liver was not evidenced as a cause of portal obstruction. No definite lump could be felt which might press on the portal vein; besides, there was no ascites or distension of superficial abdominal veins to suggest such pressure. Obstruction of the vena cava inferior was thought of, but there was no

œdema or venous dilatation of the legs or abdomen. Distension of the vein in the round ligament was considered, but there was no caput medusæ round the navel, nor any enlargement of the veins running from the navel upwards; and the dilated vessel seemed to come not from the umbilicus but from the right hypochondrium.

Adhesion of the great omentum was not thought of as the final explanation, and yet it gave evidence of its presence in the obliquely transverse obscure, somewhat cylindrical, resistant but resonant mass running across the abdomen through the epigastric and hypochondriac regions, which, properly interpreted, meant the transverse colon with the mass of omentum over it attached to the abdominal wall. Through this the blood from the liver could flow freely via the umbilical vein from the liver to the abdominal wall in the hypochondrium, and so to the tip of the ensiform cartilage.

But why did the blood come from the liver by this route instead of going via the hepatic vein? Because of the excessively contracted liver, the smallest I have ever taken from an adult. Why had he no ascites for so long a time with so small a liver? Because there was so free a passage for the hepatic blood via this vein of the round ligament.

May this not be the explanation of the excessive smallness of his liver, inasmuch as he was saved by this free flow of hepatic blood from ascites for a very long time, and so from rapid reduction of his general health, and so his liver had time to get very small.

The case seems to support the suggestion which has been proffered for temporary alleviation of the ascites and abdominal congestion in cirrhosis by establishing adhesion between the omentum and the abdominal walls. Theoretically, it plainly is possible and plausible; but when we consider the extent of the spontaneous adhesion here in length and width, and the gigantic vessel which carried away the blood from the liver (which could never be imitated in an operation), and the fatal termination by ascites and asthenia in spite of the free collateral circulation, the hopelessness of much or of prolonged improvement by operation is demonstrated.

As to the cause of the contracted liver and the adhesions—which is another story,—I think it was probably not alcoholic cirrhosis simply, if at all, but was more likely syphilitic. The chronic peritonitis, the omental adhesions, the curious and very beautiful adven-

titious capsule which could be stripped off the liver, the syphilitic choroiditis, and the absence of an alcoholic history pointed rather to a specific affection. But the main interest in the case centres in the venous internal mammary murmur, due to collateral circulation through a dilated round ligament vein.

(Read before the South Australian Branch of the British Medical Association.)

A CASE OF DISLOCATED SPLEEN, WITH OPERATION.

By C. B. Blackburn, M.D. (Syd.), Assistant Physician, Royal Prince Alfred Hospital, and R. Gordon Craig, M.B., Ch.M. (Syd.), Assistant Surgeon, Royal Prince Alfred Hospital, Sydney.

THE condition of wandering or movable spleen, while not common, is hardly sufficiently rare to justify my occupying your time with an account of an instance were there not some special features in connection with it. In the case under consideration there were complications that rendered an accurate diagnosis so difficult that my colleague, Dr. Craig, and myself consider it worthy of reporting before the Branch. We are, moreover, fortunate in that one of us had an opportunity of examining the patient only a few weeks before the symptoms referable to the spleen had appeared, while both of us saw her during the period when she was acutely ill, and she is now in excellent health just a year after she underwent an operation for the relief of her symptoms.

I first saw the patient, then 17 years of age, at the out-patient department of the Royal Prince Alfred Hospital early in June of last year. She was then complaining of the train of symptoms usually associated with chlorosis. She had flatulence, epigastric pain—often worse after food,—constipation, dysmenorrhœa, headaches and shortness of breath on exertion, and said that these symptoms had been vaguely present for some time, but assumed more definite shape during the last month. Examination showed her to be pale and anæmic, with a soft pulse, and heart sounds weak but unaccompanied by murmurs. She was tender over the epigastrium and left ovarian region. She made no complaint of any abnormal swelling, and I did not detect any unusual mass in the abdomen. I prescribed an alkaline aperient bismuth mixture, and some pills containing iron, and she reported herself a fortnight later as being some-

what improved. Four days after this I was asked to visit her at her own home, as she was exceedingly ill. I found her lying with her knees drawn up and evidently suffering very acutely with abdominal pain. She stated that she had been seized with severe pain in the lower abdomen when at work three days before, and that this had increased since. She had not vomited, and her bowels had acted well. The temperature was 102°F. and the pulse rate 120. On examining the abdomen I found the lower half rigid and motionless during respiration. The whole of the right lower quadrant was intensely tender and gave a feeling of resistance; it was also quite dull on percussion. The tenderness was, however, so great and the muscles were so much on guard that it was impossible to define the exact extent and nature of the underlying mass. Vaginal examination showed the uterus to be pushed back and to the left, and the right lateral fornix overfilled with a tense, tender, swelling. I was at a loss for a diagnosis. I did not think it was an appendiceal abscess on account of the facts that her tongue was fairly clean and her breath had not that heavy odour so characteristic of appendiceal trouble; moreover her bowels had acted well, and withal she did not look as though she had a grave bowel lesion. I was more inclined to think the swelling originated from the generative organs, and thought of pyosalpinx, ovarian or dermoid cyst with torsion of the pedicle, but none of these seemed to offer a satisfactory solution. Wandering spleen had no place in my differential diagnosis. I sent her undiagnosed to the Prince Alfred Hospital for observation and probable operation. There she came under the care of Dr. Gordon Craig, who will give you an account of her subsequent history.

I would like to call your attention to one or two points. In the first place I have no doubt that this girl had had a wandering spleen for some time, which gave her little trouble till the pedicle became twisted, yet I failed to detect it when I first saw her, though from the notes taken at that time I find that I palpated her abdomen thoroughly. As an organ as large as a spleen could hardly be missed in a most casual examination, I conclude that in the supine position it dropped back under shelter of the ribs. In the second place I ought to mention that an examination of the blood was made nearly three weeks after the operation and showed a red cell count of $4\frac{1}{2}$ millions and a hæmoglobin value of 40 per cent., which

makes the colour index .4. The leucocyte count was 6500, and showed a relative increase of lymphocytes, large and small, totalling 51.5 per cent., while the polymorphonuclears were reduced to 41 per cent. The blood picture, therefore, had no special significance.

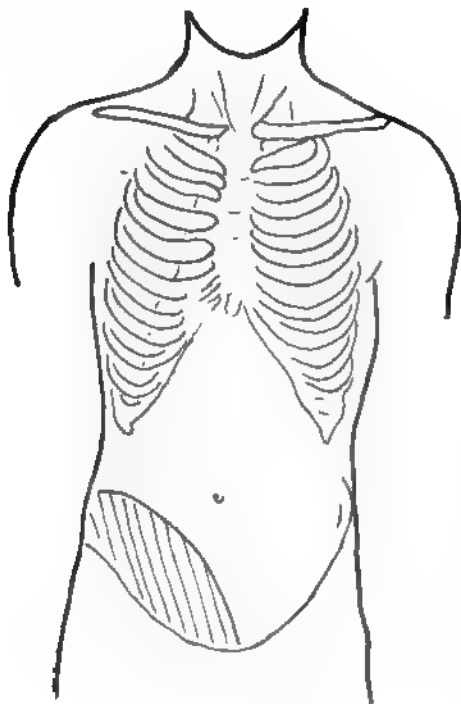
Surgical History by Dr. Craig.

This patient, a plump, well-nourished girl, was first seen by me in the wards of R.P.A. Hospital on the evening of the day of her admission, July 1st, 1906. She gave the history of pain in the lower part of her abdomen, coming on suddenly four days previously. Accompanying this she had felt sick, but had not vomited. She had been under treatment at the out-patient department of the same hospital for anaemia. At no time had she ever had a similar attack. Her bowels had been opened the previous day. The history was, on the whole, decidedly indefinite.

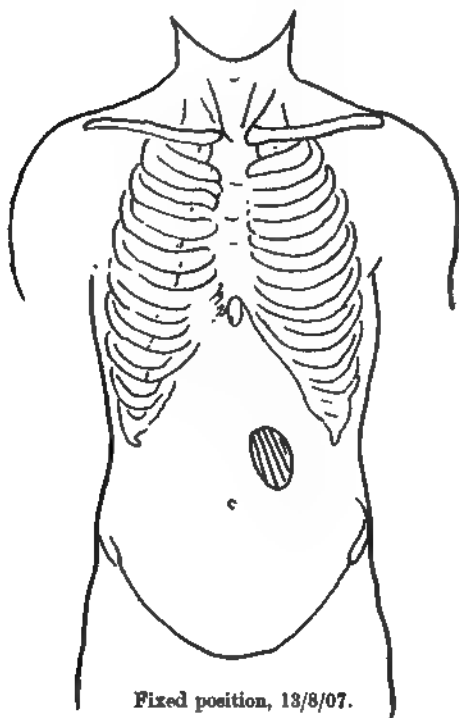
On Examination.—In the right iliac region and hypogastrium there was practically an absence of respiratory movement. Over the appendiceal region the muscles were rigid, and tenderness was present to a degree, but not marked. On percussion dullness below a line from anterior superior iliac spine to pubic spine could be made out. A vaginal examination showed that the uterus was pushed back by a mass in front and extending into right fornix. Tenderness and rigidity was too marked to make a bimanual examination. The virginal state of the vagina excluded pyosalpinx. Her pulse was 90 and the temperature normal. Her general appearance was not one of urgent distress. Immediate surgical intervention was postponed for further evidence.

The next day her pulse went up to 120 and her temperature to 103°, and she exhibited the characteristic abdominal face. Under ether an intermuscular incision was made over the centre of the mass, and on opening the peritoneum some bright, blood-stained fluid escaped. On enlarging the incision the characteristic slatey blue colour of the spleen was seen, and so engorged was the organ that the peritoneal covering had burst in several places, from which blood was oozing. Light lymph adhesions were separated, but the lower margin could not be reached from the lateral incision without cutting the muscles. A central incision gave access to the lower margin, and the adhesions binding it to the pelvic organs.

TO ILLUSTRATE DR. BLACKBURN AND DR. GORDON
CRAIG'S PAPER ON "DISLOCATED SPLEEN."



Position at time of operation, 2/7/06.



Fixed position, 13/8/07.

As soon as these were freed the spleen could be easily replaced in its normal situation. The wounds were closed in layers without drainage. The spleen was kept in position by pads and a firm bandage. Her after history was the uneventful one of an ordinary aseptic laparotomy.

Remarks.—Schlesinger, of Vienna, in his publication of last year, "Indications for Operation in Diseases of the Internal Organs," translated by Montsarrat, of Liverpool, gives the etiology of wandering or floating spleen as chiefly congenital anomalies, such as lengthening of the peritoneal ligaments or a similar condition of the serous attachments induced by trauma or increased weight of the organ. Such enlargement is usually caused by malaria, leukaemia, or pseudo-leukaemia; the non-hypertrophic floating spleen being most common in women. In this particular case the patient gave no history at the time of ever having noticed a lump in her abdomen, but on seeing her last week she volunteered the statement that ever since she had been seven years old she at times felt a movable lump in the umbilical region. In view of this statement one would be justified in concluding that her case was most probably of congenital origin. She had always lived in Sydney, never in a malarial district. The spleen when dislocated has been found in all quadrants of the abdomen, most commonly in the left hypogastrium. We are all aware of the fact that the enlarged and dislocated spleen has quite a number of times been exposed by the abdominal surgeon under the impression that he was dealing with an ovarian cyst. An eminent European surgeon records the mistake of taking it for a pelvic abscess. It has even been mistaken for a misplaced uterus, and a ring was found in the vagina to support the supposedly misplaced organ. More than one surgeon has performed laparotomy for intestinal obstruction only to find a wandering spleen with an acutely twisted pedicle. One author classes these latter mistakes as not quite pardonable. Naturally, I cannot quite agree with him, at least in the cases of acute dislocation with or without torsion of the pedicle. In these conditions the patient is usually so ill that a clearly defined history is the exception, and one would have to perform laparotomy as in other ill-defined abdominal crises. This is the first time, however, a surgeon to my knowledge has recorded that he had exposed an acute dislocated spleen under the impression that he was dealing with

an appendiceal abscess accompanied by matting and adhesions of the omentum and bowel; for such, I frankly admit, was my opinion on seeing the patient the second day, when her pulse and temperature made such abnormal excursions.

On the first day of seeing the patient the local conditions would have suggested immediate operation, but the quiet temperature, pulse and facial expression gave me the feeling that whatever the trouble was it was shut off from the general peritoneal cavity, and could be safely left for further observation. The subsequent developments on the following day naturally led me to believe I had under-estimated the local condition and been lulled into a sense of false security by the general well-being of the patient.

In reviewing the operation one can see that the explanation of the sudden rise in the temperature and pulse was no doubt due to the bursting of the peritoneal coat of the spleen with subsequent hæmorrhage into the peritoneal cavity and absorption of serum. The localised peritonitis also was a factor. The tension of the pedicle was sufficient to block the venous but not the arterial supply. This must have been slowly going on during the four days of dislocation until the crisis mentioned occurred. There was no torsion of the pedicle, nor thrombosis of splenic veins. If such occur only one course of treatment is open—splenectomy. Death in six hours has been recorded after such an accident. The tense and thinned state of the capsule precluded the possibility of stitching the organ to its normal position, as is sometimes advised, and the roughened and inflamed condition of the surface of the organ suggested the simple plan adopted. A month afterwards when the patient left the hospital the organ was still double its normal size, and could be moved from the left hypochondrium as low as the umbilicus. Thirteen months have now elapsed and the organ has shrunk to half its natural dimensions, is fixed, and situated midway between its normal position and the umbilicus. The conservative method of treatment, in the light of this result, was the right one. Splenectomy has now been performed sufficiently often to show that patients are little disturbed by such a procedure. In this case splenectomy could have been easily performed, but I refrained from doing so, having a conscientious objection to the removal of an organ that has yet to be proved functionless.

I may add that I fully expected to have to remove the organ when the patient left the hospital. She was accordingly told to report herself in three months. Nature, however, has happily solved the problem.

(Read before the New South Wales Branch of the British Medical Association.)

A CASE OF INTESTINAL ANTHRAX.

By Donald Wallace, M.B., Ch.M. (Syd.), Medical Officer to the Coast Hospital, Sydney, and R. J. Millard, M.B., Ch.M. (Syd.), D.P.H. (Camb.), Assistant Microbiologist, Department of Public Health, Sydney.

P.F., a male, *æt.* 45 years, woolsorter, admitted to the Coast Hospital, October 3rd, 1905, at 3 p.m.; died October 4th, at 7.50 p.m.

Previous History.—For five weeks prior to the onset of illness had been employed at a woolscouring establishment in Botany. His work was that of a "skin puller," dealing with sheepskins that had been treated by the "sweating" process. In this process the skins are soaked in water, then stacked in heaps until the wool becomes easily detachable. The patient's work was to remove the wool from such skins by pulling it with his hands and scraping with a two-handled knife. During the three years before the fatal attack he had had no illness except a "sore leg," and more recently some blisters on the arms, which were attributed to the use of sodium in his trade.

Symptoms.—The illness began suddenly on September 30th with a rigor in the morning. He went to work as usual, but complained of feeling out of sorts, and after two hours returned home. Subsequently on this day he noticed a slight running from the nose and cough, and thought that he had taken cold. On October 1st and part of 2nd he felt better. On October 3rd, feeling not so well he came to the Coast Hospital and was admitted at 3 p.m. He walked into the ward and neither appeared nor considered himself seriously ill. On admission: Temperature 99.2°F., pulse 90 rather soft, respirations 22. Thorax.—Lungs clear, slight cough, no pain, heart sounds normal. Abdomen.—No pain, tenderness nor swelling. Urine.—Acid, sp. gr. 1035, no albumen. In both groins the glands were palpable, and in the left axilla there was a gland as large as a small marble, slightly tender on firm pressure. During the evening the temperature rose to 103.8 at 10 p.m. He passed a restless night, perspired freely, refused nourishment, and towards

morning vomited after taking an aperient. Bowels acted four times after the aperient.

October 4th.—He continued to vomit at intervals during the day, and presented the symptoms of increasing prostration, face became anxious, skin pale, extremities cold and clammy. His mind remained clear to the end, and despite the gravity of his condition he remarked several times that he felt quite well, and even commented with some amusement on the solicitude of Dr. Wallace concerning him. The pulse, which was poor on admission, became steadily worse, and was imperceptible for some hours before death. The temperature, having risen to 103·8°F. at 10 p.m. on the day of admission, declined thereafter, and was 98°F. at 6 p.m., i.e., about two hours before death. Death took place at 7.50 p.m., 29 hours after admission; the total duration of illness having been 4½ days.

Autopsy, 18 hours after death.—Body well nourished; rigor mortis present. Surface of body.—Nothing striking; no local lesion due to anthrax. Thorax.—There was a small quantity of blood-stained fluid in the pleural cavities, which, however, might have leaked through from the abdominal cavity during dissection. Right lung.—Extensive old adhesions at apex, posteriorly and to diaphragm. Cicatrices in apex, but no consolidation. Vertebral border and base deeply congested; no consolidation. Left lung.—A few old adhesions at apex; posterior border and base deeply congested; no consolidation. Bronchial glands.—Hæmorrhagic and slightly enlarged. Heart.—Myocardium flabby, valves normal, blood in veins, heart, and aorta fluid, dark and gaseous. Abdomen.—The abdominal cavity contained an excess of blood-stained fluid. Liver and kidneys were normal in appearance. Spleen was not enlarged, but was soft and diffuent, its substance resembling anchovy sauce in appearance. Stomach showed numerous submucous hæmorrhages as large as a sixpenny piece, at irregular intervals. Small intestine presented along its course several large, darkly discoloured areas. The largest of these measured six inches in length, and extended completely round the gut, also invading the mesentery. There were six large and several smaller areas of this description. These patches were very dark-red, almost black, and on the serous surface there was a small quantity of red fluid like free blood. In the patch several small elongated nodules could be felt, and incision showed that these were submucous hæmorrhages, which ran transversely

to the long axis of the bowel. The mucous surface of these patches also was injected. The valvulæ conniventes were thickened. Abdominal glands were slightly enlarged. The cellular tissue at the base of the mesentery was markedly cedematous, infiltrated with a gelatinous fluid.

Bacteriological Examination at the Laboratory of Department of Public Health by Dr. Millard.—6/10/05.—Agar cultures received from Coast Hospital. Spleen.—Pure culture of anthrax. Heart blood.—Mixed culture of anthrax and a small bacillus. Peritoneal fluid.—Staphylococcus only. 9/10/05.—G.P. inoculated in right thigh with subculture from spleen. 10/10/05.—Sick 11/10/05, 9 a.m.—Dead, in less than 45 hours from inoculation. Bloody discharge from nose, mouth and cloaca. Bloody cedema at site of inoculation. Right inguinal glands enlarged and hæmorrhagic. Peritoneal fluid blood-stained. Hæmorrhagic cedema round lumbar glands, suprarenals and kidneys. Suprarenals deeply congested. Liver enlarged and congested. Small intestine intensely inflamed. Urine blood-stained. Lungs deeply congested. Pericardial fluid blood-stained. Hæmorrhages under the epicardium. Blood fluid, watery. Smears.—Heart blood; numerous anthrax bacilli; spleen, teeming; liver, numerous; peritoneal fluid, none. Cultures.—Heart blood, anthrax pure; spleen, pure; liver, pure; inoculation point, pure; peritoneal fluid, one colony.

Remarks.—The lesions in this case indicate unmistakably that the channel of infection was by the intestinal tract, and it appears probable that the patient, who was in the habit of eating his midday meal at the works, infected his food and so himself through contamination of his hands. At the autopsy, the hæmorrhages into the walls of stomach and intestine and the gelatinous cedema at the base of the mesentery were particularly striking, and in these features the case corresponds with others described in the literature on the subject. Some of the lesions described as characteristic of intestinal anthrax—discolouration of skin, gelatinous cedema elsewhere than in mesentery, widespread extravasations of blood, and extensive effusion into serous cavities—were wanting. The absence of some of these septicæmic changes, and the fact that the patient survived for 4½ days after the onset, may be taken to indicate that the virulence of the bacillus had been slightly modified, possibly by the

treatment to which the infected sheepskin had been subjected.

The interest of the case arises largely from the circumstance that cases of intestinal anthrax are very infrequent, or at least are rarely recorded. So far as I know, no case of intestinal anthrax has been recorded as occurring in Australia. I have searched the *Australasian Medical Gazette* for the past 25 years without finding any such. In Allbutt's System of Medicine (vol. ii., part 1, 1906) it is stated that "the intestinal form of anthrax in man is extremely rare; only two cases have been recorded in this country." At the same time it seems probable that cases may occur from time to time without being recognised, for without an autopsy and a bacteriological, or at least a microscopical, examination the diagnosis could not well be established. For these reasons it has seemed to us eminently desirable to publish this case, as, although human anthrax is not common in Australia, yet cases of the cutaneous form do occur from time to time, and, therefore, it is possible that there have been intestinal cases in which death has been ascribed to other causes.

In conclusion, I should like to state that in this instance the diagnosis of anthrax was made before death by Dr. Wallace, who was therefore not unprepared to find the characteristic post-mortem lesions. My part was merely to make the laboratory examination of the material submitted by Dr. Wallace.

(Read before the New South Wales Branch of the British Medical Association.)

EXPERIENCES IN THE SURGICAL TREATMENT OF ULCERATION OF THE UPPER ALIMENTARY TRACT.

By Frank Magarey, M.D., Ch.M., Assistant Surgeon to the Adelaide Hospital, S.A.

THE surgery of the upper abdomen has been the subject of a continuous "boom" for the last few years, following in its turn the female pelvis and the appendix. The sustained interest in the advances in the surgical treatment of affections in this region is due to many causes. In the first place they are very frequent. Then, again, their diagnosis is of great difficulty. When one considers the similarity in symptoms, at least in the earliest stage (the time when diagnosis is most important) of gallstone colic, acute cholecystitis, perforated gastric and duodenal ulcer, and acute pancreatitis, the diagnostic problem is readily seen to be a puzzling one. Other

diseases, which have no proper business to complicate the diagnosis, such as appendicitis, diaphragmatic pleurisy, and stone in the kidney, occasionally sharpen the horns of the dilemma on which the general practitioner finds himself; for (and this is the chief cause for the continued interest in these cases) it is the general practitioner who is primarily responsible for immediate diagnosis, and in many cases this is synonymous with saying that upon his clinical acumen depends the life of his patient.

In view of these facts I have thought it desirable to bring forward the following three cases, partly in the hope of eliciting the experiences of others and partly on account of certain unusual features which they individually present.

I.—Perforated Gastric Ulcer—Operation—Death.

Mrs. E.D., *æt.* 28, was treated for indefinite dyspeptic symptoms for a fortnight before being seized, at 6 p.m., with sudden intense epigastric pain. The doctor in attendance suspected a ruptured gastric ulcer, and being confirmed in his diagnosis sent her to the hospital next morning, after giving a hypodermic injection of morphia. I did not see her, however, until two o'clock in the afternoon, 20 hours after the onset of pain. I found her in an excitable, talkative condition, with a pulse of 150. Examination showed the abdomen to be markedly distended and motionless, tympanitic in front, and dull in the flanks. A fluid wave was readily elicited. The liver dullness was not obscured. A diagnosis of general peritonitis from ruptured gastric ulcer was made, and immediate operation undertaken.

Under ether the abdomen was opened in the epigastric region, slightly to the right of the middle line, and a quantity of bile-stained fluid, containing lymph and food, escaped. The patient immediately collapsed. Her desperate condition and the promise to get her back to bed alive, which the husband had extorted from me for obscure religious reasons, rendered prolonged operation impossible. An incomplete examination of the stomach failed to disclose the ulcer. I therefore introduced a tube and inserted a considerable quantity of gauze over the anterior surface of the pyloric end of the stomach, with a faint hope of isolating the point of rupture, and proceeded to open the posterior vaginal cul-de-sac. This was rapidly effected and a double tube surrounded by a mass of gauze inserted. The patient was now

in *extremis*. Two pints of saline were given intravenously, and she was put back to bed. Hypodermics of strychnine were ordered every two hours, an immediate injection of $\frac{1}{16}$ gr. of eserine, and the continuous rectal saline drip adjusted. Eight hours later the pulse was barely countable at 152, and patient was in intense pain.

Next morning the bowels were opened; there was repeated retching, with the ejection of a brown fluid. Both drains were acting effectively. Pulse, 136. Nutrient enemata were given and were well retained.

The next day showed little change in patient's condition, but on the 30th the pulse dropped to 102. The strychnine and rectal drip were continued, and patient seemed considerably better. The vaginal drain, ceasing to discharge, was removed. The following two days saw considerable improvement. The general nutrition was well maintained by enemata, and the pulse fell to 84. On dressing the abdominal wound, however, a quantity of faecal matter escaped, showing that a perforation of the transverse colon had taken place, probably due to the pressure of the tube and gauze upon a bowel wall already injured by inflammation and possibly accelerated by the action of the gastric juice. The presence of this complication and the added danger of infection, coupled with the effectiveness of the nutrient enemata, determined me to postpone the gastro-enterostomy I had contemplated. This proved to have been an error, for two days later the patient showed signs of malnutrition and the pulse increased in frequency. As the gastric contents were discharged wholly through the wound, a new communication between stomach and intestine seemed to be imperative, but as I could not guarantee a certain recovery the husband refused permission. The patient sank steadily, and died of starvation on August 8th.

The chief interest of the case lies in the subsidence of an intense general peritonitis under the influence of drainage assisted by the continuous rectal drip. Exactly why this method of introducing fluid into the system should be so superior to others is not evident, but from the observation not only of this but of several other desperate cases has convinced me of its efficacy. In the second place, a perforation which had been sufficiently patent to cause a general peritonitis was rendered harmless to the peritoneal cavity by the gauze tamponade. Of course one would not suggest such a treatment ex-

cept in cases like the one recorded; but that such a protection is possible may well suggest operation in cases where the shock of prolonged surgical procedure, such as would be entailed in finding and suturing a perforation, would preclude interference.

I think it is not too much to claim that had I not been dissuaded by the faecal fistula from performing a gastro-enterostomy at the appropriate time the patient would have had a good chance of ultimate recovery; and the colonic complication was an accident, which is hardly likely to be a common one.

It has always appeared to me that in all cases of peritonitis, which left alone will certainly die, and where operation gives the most insignificant chance of recovery, it is the surgeon's duty to give the patient that chance, and the case I have recorded seems to show that even in the apparently most desperate cases recovery is to be hoped for.

II.—*Subphrenic Abscess—Duodenal Ulcer—Operation—Recovery.*

Mr. T., aged 51, was seized suddenly by a violent pain in the region of the gall-bladder, which completely doubled him up. He was seen by a medical man, who diagnosed his condition as gallstone colic, and controlled the pain by large doses of morphia hypodermically. His general condition, however, did not become satisfactory. Constipation was very marked. I saw him on the third day of his illness. There was nothing definite in his previous history. Irregular indigestion of no definite type was the only illness from which he suffered. I found a very anxious looking man, pulse 100, temperature 101°. This was the first rise of temperature noted. He was clearly jaundiced and the urine showed bile. On exposing the abdomen a distinct rounded prominence could be seen and felt beneath the right rectus below the costal margin. Intense local tenderness seemed to point to acute inflammatory mischief, and I made a diagnosis of empyema of the gall-bladder and advised operation. Refused. Grew gradually worse, and on the fifth day Dr. J. C. Verco saw him and discovered about half-an-inch of fluid at the right base and diagnosed subphrenic abscess. Sent to a private hospital. On the sixth day examination showed two inches of dulness at the right base behind liver, dulness absent in front, but a prominence evident below costal margin. Apex beat normally placed. Patient evidently very ill with a drawn grey face—very much worse during last 24 hours. Pulse 80,

respiration 22, temperature 101.6. Urine normal, except that it was bile-stained.

Next day I operated under ether anaesthesia. A needle introduced into pleura drew off bile-stained fluid. One and a-half inches of the tenth rib were resected in the axillary line. Attempt to close the pleura was unsuccessful, and pneumothorax was established. Needle introduced through diaphragm disclosed presence of brown foul fluid. Knife inserted along needle and a long sinus forceps introduced, followed by the finger. Several pints of intensely foetid fluid escaped. A further attempt to close the pleura was successful, but as it had been infected discretion was deemed the better part, and it was drained by resecting the ninth rib behind the posterior axillary line. A large tube about a foot long inserted, and wounds partly closed. Patient's condition bad on leaving the table, temperature 101, respiration 46, pulse 108, and very weak.

For the next two days he was with difficulty kept alive by strychnine, brandy, and nutrient enemata; and then he steadily improved until the twelfth day, when he had an attack of heart failure, which for 24 hours seemed certain to prove fatal. Under persistent stimulation, however, he rallied and slowly recovered his strength.

His present condition, two years after the operation, is satisfactory. For a long time he could not raise his right arm above the shoulder, but he has full use of it now. His right chest has fallen in considerably, and the breath sounds are weak, showing that the expansion of the lung is by no means complete. He is eating his full diet without pain, and weighs more than he has done for 20 years, so that interference is not considered desirable.

I would call attention particularly in this case to the difficulty in diagnosis. Almost certainly the primary lesion was ulceration of the pyloric end of the stomach or of the duodenum. There were no indications of its presence before rupture, and although a cynic soured by sad experiences in the surgery of the upper abdomen might look upon that fact as evidence in its favour, the conclusion is not legitimate. The normal temperature maintained for 36 hours after rupture, followed by a rise of three degrees, synchronous with the appearance of jaundice and an enlarged tender gall-bladder, might well have justified my diagnosis of empyema of the gall-bladder, due to impaction of a stone in the cystic duct. Looking back upon the his-

tory, I can see that sufficient weight was not given to the intense sudden agony of the onset (gallstone colic as a rule giving warning of its coming by a few minutes or longer of less intense pain) and to the obstinate constipation ascribed at the time to morphia, but which should perhaps have suggested intestinal involvement.

III.—*Severe bleeding from Duodenal Ulcer—Gastro-enterostomy—Recovery.*

For the following notes I am indebted to Dr. C. T. Cooper, in whose care the patient was. On the 27th of May the patient, who had suffered for many years from asthma and bronchitis, had an alarming bleeding from the mouth. Dr. Cooper found him very pale, with a small, rapid pulse. Rhonchi and crepitations were audible over the whole chest, and especially at the right apex. The friends stated that he had pneumonia two years ago, and volunteered the remark that he had weak lungs. Dr. Cooper and I considered the case to be one of phthisis with hæmoptysis. Next day he vomited about two pints of dark blood. Dr. Cooper at once suspected an error, and careful inquiry elicited the fact that he had suffered from hunger-pain so clearly marked as to make a duodenal ulcer certain.

During the next few days he had two more slight hæmorrhages, and was therefore put to bed for three weeks and fed chiefly by the bowel. He improved under this regimen, but a month after returning to work he vomited 1½ pints of blood, and gave a history of having passed tarry stools for sometime previously. After two weeks in bed he once more began work, but the mælena reappeared, and he rapidly lost strength. Dr. Cooper advised operation, with which opinion I concurred on seeing the patient, and it was arranged for the following Monday. On Sunday, however, the patient became so weak from the continued loss of blood that further delay was impossible. Accordingly he was removed to a private hospital, where, with Dr. Cooper's assistance, I performed a gastro-enterostomy. The patient's condition was so bad as to render any undue prolongation of anaesthesia and manipulation unwarranted, so no attempt was made to purse-string the ulcer, which was indicated by adhesions about the first part of the duodenum. No ulcer could be felt from the outside of the stomach. Six hours after the operation fluids were given by the mouth, the patient's condition being extremely grave. Next day saw a slight improvement, but it was not until five days later that he had

sufficiently recovered to enable one to entertain strong hopes of his recovery. The diet was increased in quantity at a greater rate than one would perhaps have recommended had not the need of nourishment been so urgent, but no ill consequences followed. The patient is now well and strong, and has had no further hæmorrhage. It is still too early to say that he is cured, but I have little doubt that he will continue well.

There is some dispute still as to whether it is wise to suture the ulcer at the same time as the short circuit is made. It is true that it is not always necessary, but notwithstanding the advice of many, Mayo Robson among them, who should know, it certainly does seem more rational to suture wherever not too much difficulty is to be foreseen.

The severity of the bleeding in this case makes it worth recording. Moynihan in his work on "Abdominal Operations" gives 28 cases in which operation was undertaken for hæmorrhage in ulceration. In only four of these, however, was the ulcer purely duodenal. Our patient was evidently dying of hæmorrhage, which was stopped at once by the short circuit without suture.

The case also illustrates the poor results given by medical treatment, which, in this instance, was most thoroughly tried by Dr. Cooper. This is only to be expected, as even complete abstinence from food does not prevent the passage of the acid juice, and under such circumstances healing, if possible, would be so slow that rectal feeding would fail to keep up nutrition long enough.

(Read before the South Australian Branch of the British Medical Association.)

THE OPHTHALMO-REACTION WITH CALMETTE'S TUBERCULIN.

By E. A. Falkner, M.B., F.R.C.S. (Eng.) Toowoomba, Q.

In June of this year Calmette, of Lille, published in *La Presse Medicale* an account of a new tuberculin test, producing a local reaction when dropped on to the conjunctiva. In a recent number of the *British Medical Journal* there is an article by Sydney Stephenson on its use in a series of eye cases, but there has been no further reference to it in either the *B.M.J.* or *Lancet*. A small supply having come into my possession, the results obtained from its use may be of some interest.

Two cases, inmates of the asylum, whom Dr. Whishaw considers are undoubtedly phthisical,

did not react. In these cases no sputum could be obtained at any time for examination. Case No. 11 is decidedly interesting, as from his appearance and physical signs he would be considered to be undoubtedly affected with tubercle bacilli, but the bacillus has never been found in sputum, only pneumococci, and he did not show the slightest reaction.

Case No. 8 was an unpleasant revelation. She is one of the nurses at the hospital, and was merely used as a control, being considered healthy. When she reacted she was very carefully overhauled, but nothing suggestive of definite lesion could be detected anywhere; she expressed herself as feeling perfectly well; weighed 8 st. 12 lb., her usual weight; had neither cough nor expectoration. However, she was a cousin to case No. 1, who has advanced phthisis, and had nursed her for some considerable time; also on two different occasions it had been remarked by two of the visiting staff that she looked paler than usual. On the strength of the reaction she was sent away for a holiday.

Case No. 7 is also of much interest, confirming a diagnosis which could otherwise only be surmised. It would thus appear that this test promises to be of immense value as a means of diagnosis. It can be employed without hesitation in any case. Those who are free from tubercle experience no effects whatever; those who have tubercle merely suffer from a local irritation of conjunctiva and some lachrymation for a few days without any constitutional disturbance. This is of great advantage when compared to the ordinary tuberculin, which most practitioners hesitate to use as a means of diagnosis owing to the severity of the constitutional symptoms and the increase in the local trouble which so often occurs.

The test is as follows:—One drop of the tuberculin, which is specially prepared, free from glycerine, is dropped on to the ocular conjunctiva near the caruncle. In three or four hours if the person be tuberculous, even in the slightest degree, the conjunctiva and caruncle become slightly reddened and there is some lachrymation; these symptoms gradually increase and the lids become slightly swollen, but there is no pain, merely a slight irritation and lachrymation. The symptoms generally subside in two or three days. There is no rise of temperature.

The following cases were submitted to the test:—

No.	Sex.	Disease.	T. Bac.	Reaction.
1	Adult female.	Advanced phthisis	Present.	Reaction.
2	Adult male.	Phthisis right upper lobe in January, 1907. No cough now, and has gained 2 stone in weight	Present in January.	Reaction.
3	Adult female.	Phthisis some months	Present	Reaction.
4	Adult female.	Early phthisis suspected	Not examined	Reaction.
5	Adult male.	Physical signs and symptoms of phthisis last year. Has now regained weight, and no active mischief present	Not examined	Reaction.
6	Adult male.	Had phthisis last year. Practically no signs now, gaining weight; no cough	Present some months ago.	Reaction.
7	Girl, <i>æt.</i> 16.	Slight morning cough, slight expectoration, growing rapidly, not wasting. Suspicious condition of right apex, but nothing definite. One brother and one sister died from phthisis; one brother now badly affected	Not found on three different examinations.	Reaction.
8	Adult female.	Control case. Hospital nurse considered healthy. (See note at end)	No sputum.	Reaction.
9	Adult female.	Chronic phthisis (Asylum patient).	Not procurable	No reaction.
10	Adult female.	Hæmoptysis. Lesion of right apex. Loss of weight. (Asylum patient)	Not procurable.	No reaction.
11	Adult male.	Abscess and extensive cavities of lung following pneumonia	None.	No reaction.
12	Male child.	Delayed resolution and some cavity of lower lobe of lung after pneumonia	None.	No reaction.
13	Adult male.	Healthy control	None.	None.
14	Adult male.	Sinuses connected with bone	None.	None.
15	Adult female.	Ulcers of leg.	None.	None.
16	Adult female.	Appendicectomy and scarlet fever	None.	None.
17	Adult female.	Healthy control	None.	None.

It will be seen that all the cases which had tubercle bacilli in the sputum reacted.

I am indebted to the various other medical men in Toowoomba for supplying cases and noting the effects.

A CASE OF ACHONDROPLASIA.

By W. F. Litchfield, M.B., Sydney, Hon. Assistant Physician to the Royal Alexandra Hospital for Children.

ACHONDROPLASIA, known also as Chondrodystrophia foetalis, is a form of dwarfism that results from a failure of the normal ossification of cartilage during the middle period of foetal life. The bones chiefly affected are the long bones and the bones forming the base of the skull. The bones formed in membrane and those developed from cartilage late in foetal life, such as the clavicle, scapula, sternum, and vertebræ, escape.

The cause of the deformity is not known, but there is an hereditary element in it. A similar condition is observed in certain breeds of the lower animals, the best known example being the long-bodied and short-limbed *dachshund*. Here the variation, which in man is only seen occasionally, has become stereotyped into a distinct breed.

The condition is not a new one. Unearthed statutory show that it was known to

the ancient Egyptians, and Velasquez' paintings show that achondroplastic dwarfs were attached to the court of Phillip V. of Spain. In the more recent past the condition has been described as foetal rickets. It has also been confounded with cretinism.

The chief features seen in achondroplasia are the following:—Stunted limbs, the legs being about half their usual length, and the arms in extension scarcely reaching to the tips of the external trochanters; the long bones, too, are unusually bent and stout; the ends of the bones are enlarged, making the joints look big; the mid point of the body is altered from near the umbilicus to near the tip of the ensiform cartilage; the hands are stumpy, the fingers are of equal length, and diverge from one another at the middle phalangeal joint, producing the *main-en-trident* or wheel-spoke appearance; the body is of normal size, and sitting the dwarfism is not noticed; the feet are short and flat; the base of the skull is shortened, which produces a sunken nasal bridge, a prognathous jaw and a large cranial vault; there is lordosis, with a prominent belly, a general fatness, and exaggerated skin folds. Beaded ribs and Harrison's sulcus have been noted in many cases, due no doubt to a superimposed rickets.

The present case is a boy aged 1 year and 11 months. (See fig. 1.) He was born

at Dubbo, being delivered by Cesarean section. The mother died soon after the operation. The accompanying photograph (see fig. 3) show pretty plainly that she was also an achondroplastic dwarf. The

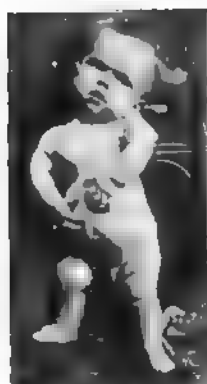


FIG. 1.



FIG. 2.



FIG. 3.

Fig. 1—Photograph of Dr. Litchfield's case, taken at the age of 18 months.

Fig. 2—Photograph of a case aged 2½ years, under the care of Dr. Wade.

Fig. 3—Photograph of the mother of Dr. Litchfield's case.

boy is now walking, and his intelligence is up to the normal. He presents all the features of achondroplasia, and I shall not re-state them. The ribs are not beaded, but there is a distinct

Harrison's sulcus, the anterior fontanelle is not quite closed, and he has a slight kyphotic curve of the dorso-lumbar spine, pointing, I think, to a moderate degree of superimposed rickets.

A serviceable description of the deformity is given in the last edition of Ashby and Wright; cases are also recorded in the *British Medical Journal* of June 30th, 1906, and January 5th, 1907, and attached to the former is a useful bibliography.

(Read before the New South Wales Branch of the British Medical Association.)

SOME BRITISH AND FOREIGN CLINICS.

By Ralph Worrall, M.D., Honorary Gynaecologist to Sydney Hospital.

HAVING recently visited 46 different British and foreign surgical clinics and seen 69 different surgeons at work, a short account of my observations may be of interest to readers of the *A.M.G.*

In the United Kingdom competition in the profession is even keener than in Australia. There are hundreds of clever, highly-qualified men, both in London and the provinces, waiting for that fame and prosperity which is so long in coming, and in the meantime finding it very difficult to pay their way. It is quite as common as in Australia to see several brass plates on one door; but the plates are always very small, and also the lettering, as if the owners were endeavouring to escape notice. To get on to the staff of the different hospitals it is necessary "to stick close" and wait, in most cases for years. This has the evil effect of preventing men visiting other clinics or taking up work outside the range of their own hospital, as is more often done by foreign, and especially American surgeons, and the consequence is perhaps a tendency to narrowness of surgical experience and outlook, and consequent undue belief in the superiority of their own methods. There are, of course, many surgeons to whom this criticism could not possibly apply, yet, I am bound to say, with much regret, I noted how London, to some extent, had ceased to be the Mecca of surgical pilgrimages, and that its place was being taken by Berlin, Vienna and Paris.

For various reasons I think it best to set forth a plain, unvarnished tale of what I saw or thought I saw, and allow each reader "to make his own criticism," as a Frenchman might put it.

I went first to the Chelsea Hospital for Women, London, and saw, on different days, the following surgeons and operations:—Mr. T. W. Eden removed two malignant ovarian tumours with hydro-peritoneum. The lateral regions of the abdomen were not protected by towels. Silk was used for all ligatures, which were passed by transfixion with a sharp full-curved needle, held in an ordinary pressure forceps. Saline solution was poured into the peritoneal cavity, notwithstanding the presence of hydro-peritoneum. The parietal wound was closed in three layers with silk, interrupted sutures for the anterior aponeurosis, continuous for peritoneum and skin.

Dr. Provis on the same day did a subtotal hysterectomy for a cervical myoma with adherent appendages.

At this hospital I saw Dr. Giles do two ventro-fixations of the uterus for mobile retro-displacement. The anterior surface of the uterus was united to the parietes by silk sutures passed through all structures of the parietes except the skin; the area of the uterus sutured was about the size of half a crown; no scarification was done. He also removed a bilateral pyosalpinx; the pedicles, which included the stumps of the tubes, were the size of mushrooms. A gauze drain was passed to the bottom of the pelvis and brought out in the lower angle of the abdominal wound. The technique generally was the same as that of Dr. Eden.

Mr. Bland Sutton removed a uterus, not markedly enlarged, with a small intramural myoma and right ovarian cyst. Three years previously the left ovary had been removed for cystic disease by B.S. There was a beautifully firm scar; the union at the first operation had been done in layers by silk. It was now made by through-and-through silk sutures, as B.S. thinks buried sutures and layering is a mistake in uniting the parts for the second time. The cervix was cut straight across, and its raw surfaces not sutured together; the cervical canal was dilated with forceps. One or two mattress sutures united the peritoneal flaps at each side, the inner one transfixing the lateral border of the cervix as well, so that when it was tied the uterine artery was doubly ligatured. The round ligaments were included in the ligature for the ovarian vessels. Silk was used for ligatures and sutures; the ligatures were passed by transfixion with sharp-edged curved needles, held in ordinary short pressure forceps. This is the technique followed by almost every London gynaecologist whom I have seen.

The exceptions I shall mention later. I should mention, too, that rubber gloves are universally worn in London.

Mr. Bland Sutton next operated on a patient who came in with pain in the left inguinal region and pyrexia; the latter had subsided at time of operation. Bland Sutton had done subtotal hysterectomy a few years ago for myoma, leaving both appendages, which were then healthy. There is now a tender swelling above pubis, felt P.V. in the left posterior fornix. Incision was made through the old scar, which was firm. Pus sac presented with moderate adhesions to omentum and intestines; in separating these the sac ruptured and offensive pus welled up. It was swabbed away, and a rubber drainage tube was inserted into the sac, no attempt being made to define its connections or separate it or unite it to parietes. The wound was closed with through-and-through silkworm gut sutures. Bland Sutton does not expect that the removal of the sac or further operation will be required.

The next operation was exploratory for gallstones. None were found, and nothing was done. I also saw Bland Sutton do a hysterectomy for a large myoma, and ovariectomy for a large suppurating ovarian cyst—the two operations completed in an hour.

Mr. Eden did a subtotal hysterectomy for myoma in a fairly young woman, removing both appendages, although one was normal. The vessels and broad ligaments are double-clipped in sections, cut and double-ligatured by transfixion with the sharp-edged, curved needle, cervix cut straight across and not sutured; the lateral suture on each side passing through the cervix, as made by Mr. Bland Sutton, was omitted; the peritoneal flaps were closed by the mattress sutures and careful top sewing, so that pedicles were covered over almost completely. Saline solution was poured into peritoneal cavity. The parietal wound is closed in three layers by silk sutures, in doing which the peritoneum is lifted up in a way which allows of air being retained.

Mr. Fenton did a subtotal hysterectomy for myoma; technique same as that of Mr. Bland Sutton. Oozing from the cut surfaces of the cervix was controlled by purse-string sutures. Mr. Fenton next operated for a discharging abdominal sinus, following an abdominal section for ectopic gestation, in which a gauze drain had been used. The silk ligature had evidently become infected. The operation was prolonged and difficult, and I had to leave before its completion.

Mr. Victor Bonney did a subtotal hysterectomy for myoma, following the same technique as Mr. Bland Sutton. Mr. Bonney's name is attached to the large curved, sharp-edged needles used by most of the London gynaecologists, and also to a well-designed cap and mask for surgeons. He next did a total hysterectomy for cancer of the cervix (Wertheim's). The ureter was dissected up to the bladder and entirely loosened from the broad ligament. The vessels, including the veins, were ligatured with silk passed through the tissues by means of the curved, sharp needles, held in pressure forceps, blunt end first. The vagina was divided between forceps, the lower pair being subsequently removed before suturing of peritoneum over a gauze pack in the lower pelvis and vagina. Only two glands were discernible in the specimen. At conclusion of operation the pulse was not countable. I heard that this patient was alive two weeks after operation, but had developed a ureteral fistula.

Mr. Fenton did ovariectomy, also two cases of hyperplastic lacerated cervix, which he treated by a free application of the thermocautery, passed just beyond the inner os. Mr. Fenton says that in about six weeks after this procedure the parts are practically normal.

A case of recurrent uterine hæmorrhage, which had already been curetted, was treated by a repetition of the curettage and a light application of nitric acid to the corporeal endometrium.

At the Middlesex Hospital I saw Mr. Bland Sutton remove a varix of Scarpa's triangle, which had already been unsuccessfully operated upon by another surgeon. The vein was ligatured with silk above and below and removed; the wound being closed with a continuous silk suture. He then did appendicectomy in the quiescent stage; the incision was made along the outer border of the rectus; the tip of the appendix was found and raised with difficulty. The sharp needle was used in ligaturing the meso-appendix with silk, the usual serous flap was made, and the stump buried by transverse sutures of silk. The wound was closed with through-and-through silk sutures, B.S. considering that layering is only advisable in the linea alba. No separate suture for the anterior aponeurosis was made. A very large hydro-nephrotic kidney was then removed through an abdominal incision along Langenbuck's line, the cause of the hydro-nephrosis being a nipping of the ureter by an unusual arrange-

ment of the renal vessels. The ureter and vessels were separately ligatured with silk, and dropped; the parietal wound was closed as in the last case. The fourth operation was for hæmorrhoids, which were removed by transfixion with silk and ligation. These four operations were completed in an hour. B.S. operates with such quickness and dexterity that very close observation is necessary to follow him, yet he never gives one the impression that he is hurrying.

At the Samaritan Hospital I saw Mr. F. I. McCann do a subtotal hysterectomy for myoma by a method not materially different from that of Mr. Bland Sutton. On the same day he did two vaginal hysterectomies for carcinoma of the body and sarcoma of the body. The uterus is anteverted before any ligatures are applied. These are passed by the sharp-edged needle held in the fingers; McCann thinks all needle holders are a mistake. The peritoneum is united to the vaginal mucosa, but the vault is not closed; a small gauze drain is inserted. In the second case several forceps were left on, as ligation was difficult; the appendages were not removed. McCann does not cause the bowels to be moved until the sixth or seventh day. The patients whom I saw in the wards had no abdominal distension, and the charts showed a good temperature and pulse line.

Mr. Keep operated with coolness and perseverance for a malignant tumour of the right ovary. An ordinary multilocular cyst had been removed from the left side 18 months previously, and at that time the right ovary was normal. It was now unquestionably malignant, and a large secondary growth had developed in the left broad ligament, which could not be completely removed. It is worthy of note how common are malignant tumours of the ovary, and how frequently there are recurrences of ovarian tumours thought at the time of first operation to be innocent.

Mr. Meredith did a subtotal hysterectomy for myoma by the technique already described.

Mr. Butler Smythe showed me over the out-patient department at the Samaritan, which is quite up to date and most conveniently arranged. Mr. Smythe is an enthusiast, and gives up most of the day twice a week to his out-patients. He is a master of the bimanual method of examination and a very able diagnostician.

Mr. McCann operated for procidentia by separating the bladder from the vaginal

mucosa extensively, puckering and inverting up the bladder by two purse-string sutures, and then bringing together the vaginal mucosa by transverse sutures of catgut. The cervix was then amputated and the cervical united to vaginal mucosa; the cervix appeared to be somewhat drawn forwards and the anterior vaginal wall to be shortened. An extensive flap-splitting perineorrhaphy, with vaginal catgut and skin silkworm gut suture, completed the operation; Mr. McCann believing that with the above method there is no necessity to deal with the position of the uterus. Another similar case was dealt with in the same way.

Mr. Roberts, assisted by Mr. Lockyer, did a complete hysterectomy (Wertheim's) for cancer of the cervix, which had been treated by the thermo-cautery ten days previously. Long incision, Polygigi's retractor in the lower angle of the wound, sharp pedicle needle, silk ligatures (the right uterine artery was cut by the needle in passing the ligature), Wertheim's angled forceps were used for the parametrium on each side and his vaginal forceps for the vagina, which was cut through below them. Peritoneum united by continuous suture; ovarian pedicles not completely buried; no drain; through-and-through silkworm gut sutures for the parietal wound, with separate buried interrupted silkworm gut sutures for muscle and anterior aponeurosis taken together. The operation took two hours and five minutes. Patient's pulse 72 immediately after, fairly good. Only one gland discernible in the specimen.

Mr. Lockyer did subtotal hysterectomy for myoma, leaving the right appendage, in 18 minutes. The technique differed from Bland Sutton's only in the use of a sharp pedicle needle instead of the needle held in pressure forceps, the bringing together of the broad ligaments sagittally over the flat cut surface of the cervix and the suturing of the peritoneum down to this, so that a puckered covering of left ovary tube, broad ligaments and bladder was provided for the cervix. The cervical canal was not dilated. All ligatures of silk, but the parietal wound was united in layers by continuous catgut suturing, including subcuticular.

Mr. Roberts operated for a malignant growth of the left ovary, which ruptured during removal. A year ago he had removed the uterus in this patient and both appendages for cancer of the body.

In the Samaritan Hospital the anæsthetic used is ether for about an hour and chloroform after this period, if the operation should last so long.

St. George's Hospital.—Mr. Crisp English, who operates with mask and head-dress and rubber gloves and boots, removed the astragalus for talipes equinus, in pieces with a gouge and forceps. He also removed a large mass of tubercular glands from the pelvis of a boy, closing the wound in layers by buried silk sutures without drainage.

Mr. Dakin did vaginal hysterectomy for carcinoma of the cervix, of which there had been preparatory treatment. Silk sutures were passed with a large curved pedicle needle to partly shut in the growth and also act as tractors. The pedicle needle was threaded after it had been passed, which involved some loss of time. No specula were used. The incision in mucosa was made by scissors.

CLINICAL AND PATHOLOGICAL NOTES.

CASE OF DICEPHALIC FŒTUS.

MOTHER is 35 years of age. Was a strong, healthy woman previous to marriage at the age of 29. Had a miscarriage five months after marriage. Has two children, aged 5 and 2½ years. With the first child, had an instrumental labour. Both children are healthy and big for their ages. Always suffers very badly from vomiting during pregnancy, and was worse this time than usual. Says vaguely that she felt very unwell during the whole of this pregnancy, but cannot describe anything definite. Had a bad fall during the first month. Labour occurred before full time at about 7½ months. The liquor amnii did not come away till the head appeared at the vulva. I was called in half an hour after the head was born, with face in front. The cord was prolapsed and had ceased pulsating. One hand was also prolapsed. Gentle traction in the axilla failed to advance the head. A hasty abdominal palpation revealed the presence of a second head lying to the right, and the first thought that passed through my mind was that it must be a case of locked twins, but on further consideration I realised that in that case the head could not have advanced so far. On passing a hand into the vagina another shoulder was felt, and was found to be connected with the first head and

shoulders. Another arm was brought down, but further gentle pulling did not advance matters, and it seemed that embryotomy would need to be performed by amputating the first head and shoulders and delivering the rest by turning. When the woman was more deeply under chloroform, however, Dr. Stewart, who very kindly came to assist me, managed to work the third shoulder past the brim, and the rest of the foetus was delivered by spontaneous evolution. The placenta was absolutely normal and came away without difficulty, and the woman so far has run a normal puerperium. Foetus weighs 9 lb.

I could find very little on the subject in the books. Edgar gives an illustration which exactly resembles this case. Of 31 cases of double monstrosity collected by Playfair, 20 were delivered naturally; the proportion delivered naturally is lower, however, in the class to which this specimen belongs, only 3 out of 8 terminating in this way, 2 of which seem to have taken place exactly like this case, the first head being fixed under the pubic arch and the rest being delivered by spontaneous evolution, the parts slipping past the pelvic brim in succession—body, shoulder and head. In the other cases both heads were born simultaneously. There seems to be a general consensus of opinion that turning is the proper course in a case of double monstrosity, but I do not think in this case it would have made things any easier.

ELEANOR BOURNE,

Brisbane.

M.B., Ch.M. (Syd.)

CASE OF HYPERTROPHIC PROSTATE.

My reasons for bringing under your notice this case of hypertrophic prostate, now that successful prostatectomies are so common, are the following:—1. The unusual severity of urinary disability from which this patient was suffering. During the last two years the elongation of the prostatic urethra had become so great that no catheter, soft or solid, could penetrate in the bladder, and for 20 times it had been found necessary by his medical attendant to puncture the bladder above the pubes. 2. The fact that this old man of 72 was subject to bronchitis and was not a good subject for ether or chloroform. To avoid risk I operated him under nitrous oxide gas anaesthesia, and this was administered by Dr. Piero Fiaschi with the Bennett apparatus and continued satisfactorily for 27 minutes. 3. The size of the prostate, which weighed eight ounces and two drachms.

This classes it amongst large-sized prostates. Mr. Freyer in his last review (*Brit. Med. Journal*, October 8th, 1907, page 889) of 432 enlarged prostates enucleated, gives 14½ oz. as the largest prostate removed by him and ½ oz. as the smallest, with an average weight of 2½ oz. The operation used was Freyer's, and I followed all through his directions strictly, with one exception, that having detached the apex and sides of both lobes I found it beyond the power of my finger to detach the base. To do this I carefully introduced a long, blunt-pointed pair of curved scissors, and snicking carefully close to the prostate was able to divide some strands of fibrous tissue, and thus was able to complete the operation, the two lobes coming out separately.

The patient made a good recovery, leaving the operating table with a pulse of 86, and is now quite well, having no difficulty or frequency with micturition, and having good continence. T. FIASCHI, M.D. (Pisa & Flor.).

Sydney.

REVIEWS AND NOTICES OF BOOKS.

A SYSTEM OF RADIOGRAPHY, WITH AN ATLAS OF THE NORMAL. By W. Ironside Bruce, M.D. Imperial folio. London: H. K. Lewis. Price, 15s net.

Dr. Bruce is to be congratulated on having produced this, the first atlas of Roentgenography. The various regions of the body are illustrated under normal conditions at three ages, viz., 5, 15 and 25 years. In each case the focus tube bears a definite relation with the part roentgenised, and indeed it would be well if all roentgenographers adopted these positions as standard ones, and comparisons could thereby be more easily made.

The reproduction of the plates, perhaps, is not as satisfactory as one might wish; but we all recognise the difficulty of obtaining satisfactory blocks for process printing of X-ray plates. All interested in roentgenography would be well advised in procuring this excellent production.

THE LAWS OF HEALTH. By Carstairs C. Douglas, M.D., D.Sc. (Public Health), F.R.S.E., Lecturer on the Laws of Health to King's students in training, Glasgow University; Professor of Medical Jurisprudence and Hygiene, Anderson's College Medical School; Examiner for the Diploma in Public Health of the Scottish Conjoint Board, etc. London: Blackie & Son. Price, 3s net.

"A Handbook on School Hygiene" is the secondary title of this little manual, and the scope of the volume is better indicated by this superscription than by the one under which it is actually put forth. It is a handbook which ought to be in the hands of all who are concerned in the school education of young children, head teachers in particular, and covers the ground of school hygiene in a thorough and judicious manner. The

chapters on the structure, arrangement, lighting, etc., of schools, are particularly good. The instructions are clear and to the point, and the author very wisely avoids controversy, and does not flinch from speaking with authority upon details. Very wise advice is offered upon the important question of infectious diseases in schools.

HEALTH IN THE SCHOOL; or, HYGIENE FOR TEACHERS.

By J. S. C. Elkington, M.D., D.P.H., Chief Health Officer and Permanent Head of the Department of Public Health in Tasmania; Lecturer on School Hygiene to the Teachers' Training College, etc. London: Blackie & Son. Price, 2s net.

This is another handbook of school hygiene, and as it is addressed particularly to teachers in colonial and rural schools, and comes from the pen of one who has had a large practical experience in Australasian schools, it has a special interest for teachers in the Commonwealth. It is a very handy little book, reliable, and not burdened with unnecessary matter, but is confined strictly within the scope suggested by its title. It is a particularly good little manual for teachers of public schools in the bush.

MANUAL OF SURGERY. By Alexis Thomson, F.R.C.S. (Edin.), and Alexander Miles, F.R.C.S. (Edin.). Vol. 2, Regional Surgery. Second edition. Edinburgh and London: Young J. Pentland. Sydney: Angus & Robertson. Price, 12s.

This is a small manual of surgery by two surgeons whose names should be a guarantee that the contents of the volume are eminently satisfactory. The sections are well arranged, and any information sought is easily discovered.

There are many illustrations which are original and very good, and some are not so good.

The style is by no means verbose, so that the book contains a large amount of information condensed into a comparatively small compass. As a students' manual it is certainly one that can be well recommended.

A TEXT-BOOK OF THE PRACTICE OF MEDICINE. By Hobart Amory Hare, M.D., B.Sc. Second edition, revised and enlarged. Large 8vo., pp. xv. + 1132, with 131 engravings and 11 plates in colours and monochrome. Philadelphia and New York: Lea Brothers & Co. 1907. Sydney: L. Bruck. Price, 22s 6d.

Of recent years American publishers have evinced a constant tendency to increase the weight of their paper and the stoutness of their bindings. Dr. Hare's book weighs 6½ pounds avoirdupois, and its unwieldiness greatly detracts from its usefulness. We may perhaps be permitted to express a hope that the climax has now attained its summit, and that a decline will follow.

With the matter of the work there is little fault to find. It gives a very good account of modern medicine, an account such as one might expect from an experienced teacher and a physician of Dr. Hare's attainments. It naturally calls for comparison with "Osler," and it may be said that while it is perhaps less judicial and critical it is at the same time more dogmatic, this is probably of advantage to the ordinary student, especially for examination purposes, and rather fuller in directions for treatment, though scarcely as full as one might expect from the editor of a large text-book, and a journal both specially devoted to therapeutics.

Two striking features are the chapters on tropical medicine, in which due credit is given to English

investigators, and the beauty of the plates, notably those representing typhoid ulcers, the evolution of vaccinia, malarial parasites, and Koplik's spots. Almost all of these are reproductions of old plates. Some, e.g., Koplik's own painting of his spots, which have already been reissued in "Holt" and "Sahli," are quite old friends. However, their excellence makes them ever welcome.

It is, of course, impossible in a book of this size adequately to cover the whole field of medicine, so we must not cavil at the shortness of the account of blood disorders and at the exclusion of sciatica.

Recent work, such as that on heart-block, receives due notice, and a useful warning is raised against the excessive hardness and difficulty of absorption of compressed tablets, in place of which tablet triturates, so little known in Australia, are recommended.

The index is good, the type is unusually large and clear, and the printing free from errors.

A DICTIONARY OF MEDICAL DIAGNOSIS: A TREATISE ON THE SIGNS AND SYMPTOMS OBSERVED IN DISEASED CONDITIONS. By H. L. McKisack, M.D., M.R.C.P. (Lond.). Octavo, pp. xii+583; illustrations, 77. London: Baillière, Tindall and Cox. Sydney: L. Bruck. 1907. Price, 10s 6d.

The scope of this book is better described by the sub-title than by the title. Although arranged in dictionary form many of the entries consist merely of headings, with references to other parts of the work, the main mass of information being conveyed in long articles. The author wisely avoids all discussion of diseases, and so has been able to devote much more space to signs and symptoms, his special object. In this respect his work resembles those of Hutchison and Rainy, Sahli and Simon, rather than those of Musser, Butler and Fenwick. He describes symptoms and signs, and then indicates the pathological conditions on which they depend and the diseases in which they occur, but he does not go on to discuss the differential diagnoses of these diseases. Speaking generally, the matter is extremely good. There are, of course, a few minor inaccuracies and some omissions. The diagnostic importance in acute visceral disease of superficial areas of hyperalgesia has been overlooked, and subjects generally regarded as appertaining to surgery are rigidly excluded, e.g., renal and biliary colic; while in the account of coma there is no mention of such surgical causes as rupture of a meningeal artery from violence, and subdural hæmorrhage.

It is of little help to be told that enlargement of the liver due to hydatids is distinguished by the fact that it often affects the left lobe. In the article on the examination of the blood the directions are too scanty, and laboratory methods generally do not receive very elaborate consideration. On the other hand, the articles on sphygmomanometry, on arrhythmia cordis (including the work of His junior and McKenzie), and on cytodagnosis are very good and include the most valuable of recent work; while the accounts of the ordinary bedside methods of physical examination and of the significance of the signs thereby elicited are excellent.

The illustrations, many of which are original and of striking design, should prove helpful.

The publishers have done their part of the work splendidly, and the book may be recommended, especially in view of its moderate price, as a very useful addition to the physician's library.

THE AUSTRALASIAN MEDICAL GAZETTE.

SYDNEY, 20TH DECEMBER, 1907.

CANCER CURES.

As all our readers well know, there is at the present time almost all over the world an immense amount of research work being accomplished on the nature of cancerous growths. The Cancer Research Fund in England has now been at work for several years, and some valuable results have been obtained as to the structure and growth of these tumours. Yet, while so much scientific research work has been in progress and some biological problems have been solved, we may say that at present, so far as any practical applications are possible, no cure short of surgical operation has been discovered. This is a well-established fact in medical science of to-day.

We therefore think that the lay press is taking upon itself no light responsibility in allowing irresponsible persons to use its columns in advocacy of methods of so-called "cures" of cancer which have been thoroughly and scientifically investigated, and have been found wanting. It is certainly lamentable that in dealing with so serious and so generally fatal a disease as cancer the general public are apparently anxious to try any and every quack remedy which may be advocated by ignorant persons for the "cure" of this disease, and to waste precious time and lose the one opportunity they have for securing the best results of surgical treatment. We all naturally shrink from the surgeon's knife, but all experience proves that it is the only cure available at present, and even that is only a cure if the disease is taken at its earliest inception.

We have recently been informed in the columns of the daily newspapers that two undoubted 'cases' of cancer have been cured by the administration of molasses. The only proof which has been offered so far of the cases having actually suffered from true cancerous disease is that the opinion had been expressed by some medical men that the patients were suffering from cancer. No medical man will deny that, short of a microscopical examination of sections of a growth by a skilled pathologist, it is impossible to be absolutely certain of a growth being cancerous, although a surgeon of experience can very generally arrive at an accurate diagnosis on clinical grounds alone. But even granted that a tumour has been proved to be cancerous by microscopical investigation, that does not prove that it may not disappear spontaneously. Cases are on record where after repeated operation for recurrent cancerous growths the tumour has again recurred, and then after being left alone has spontaneously disappeared. Unfortunately, such cases are few and far between. Still this only proves that it is impossible to dogmatise on the "cure" of a cancer as a result of the administration or application of any method of treatment. Many years ago Dr. CLAY, of Birmingham, reported remarkable results in the treatment of cases of inoperable cancer by the use of Chian turpentine. Many others gave this remedy a full and impartial trial, but no good results were obtained, and to-day no one believes that Chian turpentine is a cure for cancer. So, too, the molasses treatment has been fully and carefully tried in probably hundreds of cases, and we are forced to come to the same conclusion as to the value of this method of treatment. Medical men see only too much of the fearful suffering which the subjects of cancerous disease endure before the end comes not to make them eager and willing to make trial

of any treatment which might possibly be of service in staying the progress of the disease. Unfortunately, we have many opportunities of trying the effects of cancer "cures" on cases of advanced disease, because so many delay to have proper advice in the early stages, and this delay placed them beyond the possibility of cure by operation.

We, would, however, most earnestly urge upon our lay press that instead of bolstering up exploded ideas of the value of various drugs which have been vaunted as cancer cures, they should urge upon the public that their only safe course, in the light of present-day knowledge of cancerous disease, is to submit themselves at the earliest possible opportunity to surgical intervention.

RES MEDICA, RES PUBLICA.

UNDER the above title, Dr. WILLIAM EWART, Senior Physician to St. George's Hospital, London, has published the address he delivered at the opening of the winter session of the Medical School at that hospital.

He begins his address by pointing out that, at this the beginning of the twentieth century, the profession is in the throes of a double crisis—an economical crisis which affects a large majority of our numbers, and a professional crisis which threatens a previously compact profession in its corporate capacity. The economic crisis he attributes to the immensely growing success of the profession in reducing the prevalence of disease. With the contraction in the field of general practice, which has been in progress for many years, and is likely to still further continue, the increase in the number of practitioners, and the extension of the club system with all its crying abuses, the income of the practitioner has fallen, so that, according to the *British Medical Journal*, the average income of the British practitioner has been variously esti-

mated at £200 to £250 a year—a sum which can hardly be considered in any sense as a satisfactory return on the capital expended in education, or as a reward for life-long sacrifice and the highest skill. The prime cause of this crisis is the spread of knowledge, and the immediate causes are its fruits, chiefly of nineteenth century growth. The vulgarisation of facts and fallacies in the lay press, the growth of education, the recrudescence of the innate fascination for home treatment with compressed remedies of all kinds, the promotion of health by the remarkable spread of physical hygiene, the decline of invalidism as a result of the gospel of open air and active exercise, are the harvest which has resulted from the seed sown by the profession. As a direct result of the handiwork of the profession, he mentions the increasing knowledge of the nature of disease, of its treatment and prevention, the suppression of many decimating infectious diseases, the surgical cure of many hitherto intractable chronic ailments, the inevitable specialisation of the study of disease, the progressive growth of specialism in practice, and the attractions exercised by the success of specialists, which tends to swell and overcrowd our ranks.

No one can deny the truth of these statements, but we venture to think that Dr. EWART takes rather too pessimistic a view of the prospect of our profession. We are disposed to think that the increasing amount of study required by the student before he can become a qualified practitioner, with the associated increase in the expense of the educational course, will of itself act as a check upon the number of students who enter on the study of medicine, and will help to weed out those who are intellectually unfit for the profession. The reduction in the possible earnings of the medical practitioner of the future will also deter many from

entering upon a professional career, which is a life of self-sacrifice, and but insufficiently remunerated in the vast majority of cases.

Dr. EWART considers that as emolument for private services decreases there will be some tendency towards an increase in remunerated public work. "We have spent our busiest days in the treatment of disease; henceforth our livelihood must be increasingly derived from the care and culture of health." Perhaps so, but we venture to think that with the altered conditions of modern life—conditions which it is impossible for us as a profession to modify—there is, and will be, an alteration in the types of disease, for the treatment of which the services of the medical profession will be always in demand; and if the epidemic preventable diseases are stamped out by sanitary laws and practice, there will be an increase in those morbid conditions of the digestive, circulatory, and nervous systems, which are attendant on the stress and strain of modern civilised life.

In a later part of his address Dr. EWART deals more fully with the direct relation of the profession to the State, and on this question we may have something to say on a future occasion.

THE MONTH.

Public Health Administration in Adelaide.

IN a leading article in a recent issue, the *Adelaide Register* draws attention to a valedictory address delivered by Dr. C. Bollen on his retirement from the position of Medical Officer to the Port Adelaide Board of Health, after eight and a half years of zealous service. He lays stress upon the necessity for centralised effort, and shows by his experience in dealing with the epidemics of infectious disease that the appointment of a permanent medical officer of health for the metropolitan area, with a central staff of capable and competent inspectors, would be a great step in advance in dealing with public health problems. In addition, each local board of health should retain the services of one or more local sanitary inspectors. The board could thus not

only control the sources of infection in cases of epidemics of infectious diseases, but might also keep an efficient supervision over the houses. The *Register* regrets that, when the Public Health Act was passed, the provision for a county council of health for greater Adelaide, suggested by the late Dr. Campbell, was omitted. Subsequent experience of the effect of an injurious system of decentralisation has led to various efforts to repair the mischief. It is hoped that now that public attention has been once more directed to the question, some practical step will be taken towards a full co-ordination of health managements, since this recommendation is practically an endorsement of the views of the Adelaide health authorities.

The Coast Hospital, Sydney.

Some months ago a proposal emanated from the directors of the Royal Prince Alfred Hospital that the Coast Hospital should be closed as far as the general wards are concerned, and that only cases of infectious diseases should be treated there. This meant the transference of some 200 beds to the Royal Prince Alfred Hospital, and the payment by the Government of £50 per patient per annum to that institution. This proposal met with some opposition from the residents of South Sydney, and from the Board of Health. Owing to changes in the ministerial head of the department of the Chief Secretary, the matter, which has been under consideration for some time, has not been definitely decided until this month. Mr. Wood, the Chief Secretary, has decided that the Coast Hospital shall remain undisturbed in its establishment for the present. As to the value of the buildings at the Coast institution, the Government Architect has reported that the oldest building has still a life of over eight years, whilst the majority of the buildings are comparatively new.

The Touting Optician.

We have received from a correspondent a circular which he received from a firm of opticians in Sydney, which we reproduce:—"Upon referring to our books we find that it is over two and a-half to three years since we had the pleasure of testing your eyes. As there is usually some change necessary in the glasses, due to lapse of time, we, agreeable to our usual custom, take the liberty of reminding you, that perhaps to make the glasses

quite comfortable again, it might be wise to have them re-tested. Our Mr. _____ (Member of the British Optical Association) would personally test them for you." That such a circular should have emanated from a respectable firm, and been sent to a medical man, shows, to our mind, not only a great want of business tact, but a deal of effrontery. It is needless to remind our-readers that these advertising opticians are quite incompetent to prescribe glasses, however good they may be at manufacturing them in accordance with an ophthalmic surgeon's prescription. But the general public need to be educated to realise this fact, and until they do realise it, many will suffer from the evil results of wearing glasses quite unsuitable for their refractive errors.

Tropical Diseases.

The Army Board of the United States Army for the Study of Tropical Diseases report the discovery of a new blood parasite, which is designated *Filaria Phillipinensis*. This new parasite, which, so far as is at present known, is not pathogenic, is of interest as being of common occurrence among the natives of the Philippine Islands. Its presence in the mosquito *Culex fatigans*, as well as its life history in that insect, has been demonstrated. The Board has also investigated dengue, and after an exhaustive study has been unable to find any organism in the blood of infected persons, but has been able to reproduce the disease in susceptible individuals by intravenous inoculation of filtered and unfiltered blood from dengue patients. It has been able to prove the transmission of the disease by the mosquito *Culex fatigans*, and concludes that the disease is not contagious. The Board has also found the *Entamoeba coli* among a very large percentage of healthy American soldiers, and has demonstrated its continued presence in the intestine for long periods without producing symptoms. The *Entamoeba dysenteriae* may be readily distinguished morphologically from *Entamoeba coli*, and is uniformly pathogenic.

The Procreation of Genius.

Dr. Louise Rabinovitch, of New York, read a paper on the genesis of genius at the recent International Congress on Neurology and Psychiatry, held at Amsterdam. She points out the somewhat noteworthy fact that very few men of genius have been the

first-born of their parents. Out of 74 great men and women, including poets, writers, politicians, painters and musicians, only ten were the first-born, and in many cases these geniuses were the youngest or next youngest in large families. Coleridge was the youngest of 13 children; Washington Irving, the youngest of 11; Balzac, the last of 3; George Eliot, the last of 4; Napoleon, the last of 8; Daniel Webster, the last of 7; Benjamin Franklin, the last of 17, and the last-born of the last-born for several generations; Rembrandt, the last of 6; Rubens, the last of 7; Landseer, the fifth of 7 children; Wagner, the last of 7; Mozart, the last of 7; Schumann, the last of 5; Schubert, the thirteenth of 14. Commenting upon these interesting facts, the *Medical Record* remarks that the parents of great men were for the most part of a ripe age at the time of conception of the latter; that is to say, the cellular potentiality of the parents was then at its maximum from the mental as well as the physical point of view.

The Rebuilding of the Melbourne Hospital.

Much discussion is still going on as to the best site for rebuilding the Melbourne Hospital. In terms of the gift of £100,000 to the hospital committee by the trustees of the Edward Wilson estate, unless a new site be acquired by April, 1908, the new building must be erected upon the present site. The honorary staff of the hospital are not united on the question, and several of the staff have signed a memorandum to the effect that in their opinion "the removal of the hospital to the pig market site would be detrimental to the best treatment of the sick poor of the city and suburbs, and against the interests of the hospital as the city hospital and chief medical, dental and massage school, and that a hospital satisfying all reasonable requirements in all such respects can and should be erected upon the present central and most accessible of all sites." Other arguments have been advanced in favour of retaining the hospital where it is at present. But much can be said on the opposite side, and we cannot help thinking that the opportunity of securing a larger site in a more open neighbourhood should not be lost.

The Premier of Victoria has asked the House to sanction the expenditure of a further sum of £10,000 for the charities. Of this, £5000 is for the Consumptives Sanatorium at Broadmeadows.

BRITISH MEDICAL ASSOCIATION NEWS.

PROCEEDINGS OF AUSTRALASIAN BRANCHES.

New South Wales.

A CLINICAL and pathological meeting of the Branch was held on Friday, November 15th, at 8 p.m. The President (Dr. B. J. Newmarch) took the chair, and there were about 50 members present.

The following cases were exhibited:—Achondroplasia, Dr. W. F. Litchfield; Bilharzia Hæmatobia, Dr. H. C. Hinder; Disseminated Sclerosis, Dr. J. M. Gill; Sarcoma of Sternum, Dr. P. Fiaschi.

Dr. W. F. LITCHFIELD showed a case of Achondroplasia and read a report on it. (See page 624)

Dr. GORDON CRAIG (for Dr. H. C. Hinder) read some notes on a case of Bilharzia Hæmatobia—patient exhibited—and microscopic slides of the urinary sediment showing ova.

Dr. P. FIASCHI said that considering the present failure of treatment in bilharziasis, and remembering the recent reported successes obtained in the treatment of trypanosomiasis by atoxyl, a new arsenic preparation, it would be interesting to see what effect atoxyl might have in bilharziasis.

Dr. R. B. WADE read some notes on a case of Intra-Uterine Cerebral Hæmorrhage, and exhibited the specimen.

Dr. T. FIASCHI read a report on a case of operation for hypertrophied prostate by Freyer's method under nitrous oxide anaesthesia. (See page 629.)

Dr. MAITLAND was interested in Dr. Fiaschi's report of this case. Personally he preferred the perineal route, although he admitted that by Freyer's method it might be more easy to remove a very large prostate. Formerly he had operated always by the supra-pubic route, but now he always operated by the perineal route. The chief impediment to the removal of a large prostate by the perineal route was the triangular ligaments. If this be divided the prostate can be drawn down easily. The perineal operation, moreover, affords a better means of drainage than the supra-pubic. They should remember that the prostate was a perineal organ, and the perineal was the most direct route for its removal when enlarged.

Dr. GORDON CRAIG was interested in two points. First, the prolonged period of anaesthesia under nitrous oxide gas. He had not previously heard of such a prolonged administration. From his observations recently he had come to the conclusion that ether was the best anaesthetic for old men with senile hearts, or who were suffering from chronic bronchitis and emphysema. Secondly, the method of operation. He had listened to Dr. Maitland's advocacy of the perineal operation, and its advantage over the supra-pubic, but he had yet to see the case which was unsuitable for the supra-pubic operation. The rapid recovery after this operation counterbalanced other disadvantages urged against it by Dr. Maitland.

Dr. P. FIASCHI, said in cases like the one under discussion the value of a nitrous oxide narcosis with its mortality of 1 in 50,000, cannot be over-estimated, as well as in diabetes. In the latter cases it is needless to mention the danger of acetonaemia, with fatal results, following the surgical interference under either or chloroform, also in cases of empyema and kidney conditions as anuria, it is of especial value. Gas narcosis for general surgical procedures, even for long continued periods, have come rapidly into favour

in America in the last four or five years. A complete and suitable anaesthesia can be easily maintained for a laparotomy up to an hour or more. The speaker has given gas anaesthetics for such operations as prostatectomy, cholecystectomy, amputations, through almost every portion of the lower extremity, and in kidney cases. In connection with amputation, notwithstanding local anaesthesia and nerve blocking, by intraneural injections and the benefit obtained in bad cases by such procedures, it cannot but be conceded that absolute unconsciousness of the patient is preferable to the surgeon, as rapid and thorough work is not prevented under gas. As regards the question of perineal prostatectomy brought up by Dr. Maitland, the nitrous oxide anaesthesia has its disadvantages, and also for work on the rectum, as you have all noticed the tendency of the patient to straighten out the legs when under gas. The credit of prostatectomy under nitrous oxide and the elaboration of the two-step procedure in very bad risks, that is first cystotomy, and a few days later prostatectomy, each procedure requiring but a short time, belongs to Dr. Joseph Weiner, of New York, whose experience in these kinds of cases is very large. The speaker makes use of the combination of nitrous oxide and air, and the inhaler of Dr. Thomas Bennett. The whole apparatus is small, compact, and may be put in a coat pocket, with the exception of the cylinder.

Dr. ST. J. DANSEY asked if any had had any experience of intraspinal anaesthesia under stovaine for the performance of these operations. Out of four cases tried at the Royal Prince Alfred Hospital recently, two were successful and two failed.

Dr. THOMAS FIASCHI, in reply to Dr. Maitland, admitted that for several years he had been an advocate of the trans-perineal prostatectomy. One of the largest prostates removed by him had been done by this method, in two times, and Dr. Maitland had been kind enough to assist him. For some time, however, he had reserved this method only for cases of small fibrous prostates, and all the large adenomatous prostates he had operated by Freyer's supra-pubic method. In changing his method he had no doubt been influenced by the writings and great successes of Mr. Freyer. But his chief reason was that in his experience after the perineal operation patients complained of great pain, whilst after Freyer's operation it was surprising to see how little pain they suffered. In trying to relieve these old men from their distressing infirmity, it was important to choose the operation that inflicted less pain. The great argument in favour of perineal operation was that it gave a chance to the patient of having his genital powers preserved, but he looked on this argument as sentimental and not so important as that of saving pain. Another objection to the perineal operation was the risk of wounding the rectum. Whether it was the clumsiness of the operator or the pressure of the retractors, or the interference with the blood supply to the rectum, it frequently happened that on the second or third day after the operation faeces escaped from the wound. This had occurred to him in three cases, though he had used every care to avoid wounding the rectum, and fortunately these cases made a good recovery. Many well-known surgeons had in the literature of the last three years recorded such an experience, and it is fair to assume that many more have met with the same, as it is a misfortune that not all care to record. As regards drainage, he considered that the introduction of the large one-inch indiarubber drainage tube, according to Freyer's rules, had been a great advantage, and by diminishing hæmorrhage and spasm had much improved the results of this operation.

Dr. SYDNEY JAMIESON read some notes on a peculiar form of new growth in the breast.

Dr. MILLARD read notes on a case of intestinal anthrax, which had been under the care of Dr. Donald Wallace at the Coast Hospital.

Dr. J. Macdonald Gill showed a case of disseminated sclerosis, and read some notes upon it.

The following card specimens were exhibited:—The ova from a case of bilharzia hæmatobia, Dr. H. C. Hinder; new growth of breast, Dr. S. Jamieson; pancreas, hæmorrhagic pancreatitis; kidneys, calculus in one and in ureter of other, kidney with double ureter; hair balls, (1) from human stomach, (2) from ileum of same patient; larynx, malignant growth in situ, Dr. A. Aspinall; brain and brain case, intrauterine cerebral hæmorrhage, Dr. R. B. Wade; hypertrophic prostate, Dr. T. Fiaschi.

An ordinary meeting of the New South Wales Branch was held at the Royal Society's House, Elizabeth-street, Sydney, on November 29th, 1907; the president (Dr. B. J. Newmarch) in the chair. There were about 20 members present.

The minutes of the meeting held on October 25th were read and confirmed.

The minutes of the clinical meeting held on November 15th were read and confirmed.

The minutes of the extraordinary meeting held on November 21st were read and confirmed.

The PRESIDENT announced the election of Dr. May Hannah Harris, of Newcastle, as a member of the Branch, and the nomination for membership of Dr. Joseph Coen, of Sydney, and Dr. Robert Edward Rygate, of Grenfell.

Dr. E. H. BINNEY read a paper on "A Case of Gangrene of the Ileum."

Dr. C. MACLAURIN said that Dr. Binney was to be congratulated on this very remarkable case. He personally seldom found it necessary to drain nowadays in abdominal infection; but criticism in this case was discounted by the fact that the child had recovered, which was undoubtedly due to the manipulative skill and gentleness of handling it had received. These, after all, were probably the main factors in successful abdominal surgery.

The President, Drs. Clubbe, T. Fiaschi and P. Fiaschi also discussed the paper.

Dr. BINNEY wished to thank the members for their kindly criticisms. As far as he could judge, the coil of damaged gut was not far from the ileo-cæcal junction, but its exact situation could not be demonstrated owing to the existence of surrounding peritonitis. In the earlier part of the paper he mentioned that the child was suffering from a condition of semi-starvation, but the subsequent history of the case had convinced him that such a condition need not remain permanent. The subcutaneous ecchymosis was due to infiltrations of fluid from the gangrenous mass through peritoneum and abdominal parietes. Dr. Clubbe's suggestion that he might have adopted Mickulicz's method of suturing the opposed surfaces of intestinal ends near the mesentery was a good one, especially as the subsequent spur in the artificial anus could be destroyed without wounding any intestine that may become occluded. He had great respect for the present spur that remained below the fistula. Dr. MacLaurin's method of avoiding drainage wherever practicable and safe, he was afraid could not apply here. The gangrenous bowel lay in a lake of peritoneal fluid that occupied almost the whole of the lower half of the abdomen. Pea drainage seemed to him to be imperative. Dr. Fiaschi's remarks on the mortality of such a condition he could only endorse, and

agreed with him that it was not one of mesenteric thrombosis. Such cases, of which he had seen two examples, always appeared to be fatal.

Dr. CHAPMAN read a paper on the "Precipitin Reaction in Hydatid Disease," by Professor Welsh and himself.

Dr. C. MACLAURIN ventured to suggest a possible explanation of some of the anomalous results to which Dr. Chapman had referred. The work of Terrier and Auvray had shown the normal physiological processes of the hydatid. When in health it abstracted the proteid from its host, serum, excreting the water and salts into the mother-cyst cavity, while the albumen was discharged again into the host. The latter was therefore subjected to a continuous albuminous injection with his own albumen, which no doubt accounted for the precipitin reaction found by Welsh and Chapman. When, however, the hydatid began to lose health, the first symptom is a passage of albumen through the dialysing membrane of the mother-cyst, and the hydatid fluid is found to contain proteids. Now, in multiple hydatid infection of the liver, anything which tends to cause leucocytosis in that organ will interfere with the vitality of the hydatids; thus, if one is operated upon the others frequently suppurate. Should this occur, there is a stoppage of albumen injection into the patient, and therefore a stoppage of the stimulus which leads to precipitin formation. The whole subject is most abstruse, and it is clear that we are only at the beginning of our knowledge concerning the relation between the hydatid and its host.

The President, Drs. Millard and Fiaschi also discussed the paper, and Dr. Chapman replied.

Dr. T. S. DIXON read a paper on "A Case of Malta (Undulant) Fever."

The President, Dr. Bruce and Dr. J. A. Dick discussed the paper, and Dr. Dixon replied.

Victoria.

THE ordinary monthly meeting was held in the hall of the Medical Society on Wednesday, November 13th; Professor Allen in the chair.

Dr. H. M. Hewlett showed a case of myxœdema in a woman.

The PRESIDENT gave notice that a special meeting would be called at the close of the annual meeting in December, at which he would move certain amendments in the rules to comply with suggestions from the Organisation Committee of the Association. These suggestions were the outcome of conferences between Dr. R. R. Stawell as our representative and the central authorities, and would tend to greatly simplify the rules.

Nominations for office-bearers of the Branch and of the Society for 1908 were then received.

Dr. E. A. SROWERS read notes on a case of acute lymphatic leukaemia in a woman aged 47. There was history of influenza in July, soon after which she began to suffer from profuse night sweats and progressive anæmia, with rapid loss of weight. On August 15th the spleen was first found to be enlarged, and within a week its lower border reached the umbilicus. Blood-count on August 18th showed erythrocytes, 1,833,000; leucocytes, 91,000; hæmoglobin, 33 per cent. Temperature throughout ranged from normal to 104°, being highest towards the end. Progress was steadily downward until death occurred on August 25th.

Dr. F. J. WILKINSON showed blood-films from the case, and spoke of their importance from a diagnostic point of view.

The PRESIDENT said that these cases were chiefly of interest in that the mononuclear cells present were not

lymphocytes, but immature narrow cells. The origin of the cells was profoundly affected.

Dr. HILLER discussed the temperature changes and the question of a possible septic origin. The disease seemed to be primarily one of the bone marrow, and only secondarily of the lymph glands.

Dr. A. JEFFREYS WOOD read notes on Dr. Boggs' method for the quantitative determination of proteids in milk.

Dr. A. J. WOOD also read a paper on "Some Pneumococcal Infections in Children." After discussion of the pathology of the pneumococcus, he quoted and gave full accounts of cases of pneumococcal peritonitis following pneumonia and empyema and of pneumococcal arthritis, one case being a complication of pneumococcal cerebro-spinal meningitis.

At the close of the above meeting a special meeting was held to consider the minutes of special meeting of representatives referred to the divisions by the Council of the Association.

The PRESIDENT explained the differences of opinion between the representatives and the Council, and referred to the minority report of the Council, which had been signed by our representative, Dr. R. R. Stawell.

Drs. SYME and MOORE considered the Council had acted wrongly in sending the circular with the referendum giving only their side of the questions. They supported the representatives' meeting.

The PRESIDENT then put the minutes *seriatim*. They were unanimously approved by the meeting.

THE annual meeting was held in the hall of the Medical Society on Wednesday, December 4th, 1907. The President, Professor Allen, occupied the chair, and there were 45 members present.

The President, in opening the meeting, announced that he had appointed Drs. Cuscaden and Wilkinson to act as scrutineers for the election of office-bearers, and that they would give ballot-papers to members present so that they could record their votes at once if they so desired. He also announced that Dr. Vance had presented to the library a copy of Styrap's Code of Medical Ethics. The Hon. Secretary had also been instructed to procure a copy of the Ethical Rules of the Bradford Branch, which was recognised as the standard code.

The Hon. Assistant Secretary read the annual report of the Council and Committee, which was adopted.

ANNUAL REPORT OF THE COUNCIL OF THE VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION AND COMMITTEE OF THE MEDICAL SOCIETY OF VICTORIA FOR 1907.

At this, the close of the first year during which the amalgamation of the Victorian Branch of the British Medical Association with the Medical Society of Victoria has been in force, the Council and Committee have to congratulate the members upon a successful and sound year's work.

At the meeting of the Council and Committee of January 23rd the following additional officers were elected in accordance with the rules:—Hon. assistant treasurer, Dr. H. W. Bryant; hon. assistant secretary, Dr. Henry Laurie; hon. editors of the *Intercolonial Medical Journal*, Drs. C. A. Altmann, W. B. Vance, and J. F. Wilkinson.

There have been 14 ordinary and special meetings of the Council and Committee during the year, at which the attendance of members has been as follows:—Professor Allen (president) 9, Drs. Altmann* 1, Balfour 14, Boyd 10, Bryant* 4, Cuscaden 11, Howard 7,

Laurie* 11, Meyer 4, Mollison 13, Moore 11, Morton 9, Noyes 4, Beattie Smith 12, Stephens† 2, Syme 8, Vance 10, Wilkinson 10, Wood 12. Elected January 23rd, 1907. †Absent from the State.

During the year 19 new members were elected and four were gained by transfer from other branches of the Association.

The Council have most regretfully to record the deaths during the year of two of the senior practitioners, Dr. James T. Rudall and Dr. A. S. Gray.

The roll of members at the close of the financial year is as follows: 380 ordinary, 10 associate, 5 life members of the Medical Society.

The general meetings, of which there has been one annual, nine ordinary, and three special, were well attended, the average being 41 members present. A valuable series of papers have been read, and cases and exhibits shown. A list of these is appended to this report.

At the conclusion of the June meeting Mr. G. H. Knibbs, F.S.S., etc., Commonwealth Statistician, read a most valuable paper on "The Classification of Disease and the Causes of Death from the Standpoint of the Statistician."

The Council desires to thank Dr. Mollison for the exceedingly valuable specimens of pathological anatomy exhibited and demonstrated by him.

During the year the Council has, at the request of the central authorities, made detailed suggestions concerning the proposed new charter, and these will be sent forth in the address of the retiring president.

Correspondence has been actively carried on with the Organisation Committee concerning the rules of the Branch; and in this respect the Council was greatly assisted by the presence of Dr. Stawell in England, acting as representative of the Branch on the Central Council and at the annual meeting of the Association. Certain rules have been amended during the year, and further proposals, already ratified by the Central Council, will be laid before the members this evening, so that, if these are adopted, the Branch will be in full working order with its code of rules complete and authorised.

After careful consideration the *Intercolonial Medical Journal* was provisionally made the organ of the Branch and Society, and has since that decision been supplied regularly to all members.

The Branch has also during the year adopted a series of rules to govern the formation of sections for the discussion of special branches of medical knowledge. It is hoped, in view of the amount of valuable work that is passed over unrecognised at present, advantage will be taken of these rules and several sections constituted in the near future.

The constitution of Divisions of the Branch is a matter which has been considered from time to time by the Council, in order the more closely to bind together the members in different parts of the State. The Ballarat Division is at present the only live one, but the Victorian members of the Border Medical Association have applied to be recognised as Division of the Branch. It is hoped that old Divisions will be resuscitated and new ones formed. It will be necessary for the incoming Council to define boundaries and arrange for the representation upon the Branch Council of the Divisions.

The members of the Council and Committee feel that they cannot close their report without expressing in warmest terms their appreciation of the invaluable services rendered during the year by the retiring President, Professor H. B. Allen. To his power of organisation is due in very great measure the machinery of amalgamation which has worked so smoothly. Upon him also devolved the by no means light task of drafting

the memorandum embodying suggestions concerning the proposed new charter which was forwarded to the central authorities of the Association. Professor

BRITISH MEDICAL ASSOCIATION.—Treasurer's Report.—The Hon. Treasurer in account with the British Medical Association (Victorian Branch). Statement of receipts and expenditure for the period ending November 30th, 1907 :

RECEIPTS.	£	s.	d.
To Balance from 1906	85	3	6
„ Deposit repaid by Bank	200	0	0
„ Interest on Deposit	6	0	0
„ Subscriptions to Branch and Medical Society of Victoria	862	4	6

£1,153 8 0

CASH ASSETS.	£	s.	d.
The Bank of Victoria Limited	126	5	3
Deposit Rec. Bk. of Victoria Ltd., Prahran	100	0	0
Savings Bank Trust Account	21	6	2

£247 11 5

Allen's services have been beyond praise.

The Hon. Treasurer pointed out the main items in his report, which had been circulated.

EXPENDITURE.	£	s.	d.
By <i>British Medical Journal</i>	473	6	6
„ <i>Australasian Medical Gazette</i> , 1906	41	4	3
„ Stillwell's Account, 1906	23	15	6
„ Rent, 3 months, 1906	2	0	0
„ Subscriptions to Medical Society of Victoria	303	19	0
„ Cables	4	18	0
„ Gas	9	5	0
„ <i>Intercolonial Medical Journal</i>	49	1	3
„ Telephone	6	16	8
„ Deposit with Bank of Victoria Limited	100	0	0
„ Petty Cash, Hon. Secy. and Treas.	6	16	0
„ Exchange	2	8	3
„ Rubber Stamps	0	12	0
„ Bank Charge	0	5	0
„ Cheque Book	0	2	0
„ Cost of Bank Drafts	2	13	4
„ Balance in Bank of Victoria Limited	126	5	3

£1,153 8 0

Audited and found correct,

J. V. M. WOOD, A.I.A.V., Auditor.

C. H. MOLLISON, Hon. Treasurer.

Melbourne, December 3, 1907.

MEDICAL SOCIETY OF VICTORIA.—Treasurer's Report.—The Hon. Treasurer in account with the Medical Society of Victoria. Statement of receipts and expenditure for the period ending November, 30th 1907 :—

RECEIPTS.	£	s.	d.
To Balance from 1906	151	4	5
„ Subscriptions	332	16	6
„ Telephone Fee refunded	5	0	0

£489 0 11

EXPENDITURE.	£	s.	d.
By Caretaker	25	10	0
„ Collector	9	12	8
„ Telephone	5	0	0
„ Stillwell & Co. (Printing 1906)	58	17	0
„ <i>Lancet</i> , 3 months, 1906	94	8	3
„ <i>Intercolonial Medical Journal</i> , 1907	175	0	0
„ Library Account—			
Library Clerk	£15	0	0
Binding	10	1	0
G. Robertson & Co.	21	0	3
H. K. Lewis	1	0	0
	47	1	3
„ Rates	9	0	0
„ Repairs	4	14	10
„ Insurance	3	7	6
„ Ronalds	1	1	0
„ Regulating Clock	1	1	0
„ Transfer to B.M.A.	4	4	0
„ Bank Charge	0	5	0
„ Cheque Book	0	2	0
„ Balance in Bank of Victoria	49	16	5

£489 0 11

C. H. MOLLISON, Hon. Treas.—Melb., Dec. 3, 1907.

Audited and found correct, J. V. M. WOOD, A.I.A.V., Auditor

The PRESIDENT said that the financial arrangements during the year had been somewhat in the nature of an experiment. There had been some doubt as to whether the two journals could be supplied to members for the existing subscription. However, the experiment had justified itself, and with an addition of about 50 more members the balance would be on the right side. The great point was to increase the membership roll. He appealed to all members to hunt up new members and not leave it entirely to the office-bearers. The report was adopted.

Dr. H. D. Stephens read the report of the Hon. Librarians, which was adopted.

LIBRARIANS' REPORT, 1907.

The library has made steady progress during the year. Over 100 volumes of periodicals, hospital reports, and transactions of societies have been added by purchase or exchange.

Great difficulty is experienced in keeping the periodicals in a complete state on account of single numbers.

being removed from the library without their even being entered in the loan book. Consequently, if they are not returned, as is so often the case, it is impossible to trace them, and subsequently often impossible to replace them. It is a breach of the library rules to remove these unbound current numbers, and we would urge members to adhere to this rule and to assist us by returning any journals they may have on loan.

The following donations have been received during the year:—The Editors *Intercolonial Medical Journal*, 5 vols. of General Literature; Dr. G. G. O. Phillips, 22 vols. of Periodicals.

A. W. FINCH NOYES, } Hon. Librarians.
H. DOUGLAS STEPHENS, }

The election of office-bearers was then proceeded with. The President announced that for the offices of President, Vice-Presidents, Hon. Treasurer, Hon. Secretary, and Hon. Librarians only sufficient nominations had been received. On the motion being put the election of the following to these offices was confirmed:—President, Mr. G. A. Syme; Vice-Presidents, Dr. G. Cuscaden, Dr. R. R. Stawell; Hon. Treasurer, Dr. C. H. Mollison; Hon. Secretary, Dr. L. J. Balfour; Hon. Librarians, Dr. A. W. F. Noyes, Dr. H. D. Stephens.

The retiring PRESIDENT said that before vacating the chair he desired to thank members and the office-bearers for much help during his year of office. Nothing could be more pleasing to him than to hand over the office to his old friend Mr. Syme, than whom no one could be fitter to occupy the chair. He wished the Branch, under the guidance of Mr. Syme, all possible prosperity and success.

MR. SYME, on taking the chair, thanked the members for the honour they had conferred upon him in placing him in the chair. It had been very largely due to Professor Allen that matters had gone so smoothly. He, however, considered that there was still much to be done and to be overcome. He trusted that the good wishes expressed would be realised.

The retiring President, Professor Allen, then delivered his address.

DR. JAMIESON, in moving a vote of thanks to the retiring President, said that his recollections dated back more than 30 years, even before he came to Melbourne. He remembered attending a meeting of the Society then at which Dr. Allen, then newly appointed a demonstrator at the University, was present. He noticed then how older members referred to him in matters of difficulty, and now, when he might be considered one of the senior members of the profession, we still looked to him in our difficulties. He had very much pleasure, as one of the oldest members, certainly the oldest present, in proposing a hearty vote of thanks to Professor Allen for his able address.

DR. STAWELL said that he considered it a privilege to be joined with Dr. Jamieson in seconding the vote of thanks to Professor Allen. Professor Allen had shown members how the amalgamation had taken place and the difficulties met and overcome. He (Dr. Stawell) had had many opportunities in England of putting the views of our Council before the central authorities of the Association. He feared on one point matters might not be settled exactly in accordance with our wishes; that was in connection with the broad ethical relations between Branch and Branch. At least, in the future, no medical man from a part of the Empire where he could have become a member of the Association would be admitted as a member without reference to the Association authorities in that part of the Empire from which he had come. The central authorities could not at first realise that we could want

almost complete autonomy and yet desire an intimate relationship with the parent Association. In his opinion the most intimate relationship with the parent Association was most desirable for us always. He thought that largely through the negotiations with this Branch the relations between the central Association and its overseas branches would now be exceedingly cordial. His visit to the old country had taught him even more strongly to realise the necessity for organisation. He anticipated few difficulties in the future. The success of the negotiations in England had been very largely due to Professor Allen, who had kept him well primed.

The PRESIDENT said that he desired to emphasise what had been said in reference to the need for organisation. It should be our aim to get every reputable medical man in the State into our ranks. The position of the profession in other countries was worse than here, but the time was certainly coming when our battle would be keener. There must be an increase numerically in our members. It behoved all to assist in bringing in new members. He had much pleasure in conveying the hearty vote of thanks to Professor Allen for his services and retiring address.

Professor ALLEN, in reply, said that certainly a great deal of work had been done and much good effected, but all had realised that it was essential for the welfare of the profession. With divisions and jealousies we must be weak and go to the wall. The status of the profession was no mean matter of money. We could not be worthy members of a noble profession if we did not uphold its honourable traditions and realise its high privileges. He feared that we could not expect to get for this next year a representative so able as Dr. Stawell. We should, however, endeavour to be represented by some one who was conversant with the most recent work of the Branch. The negotiations with the central authorities would never have attained their present satisfactory position without the services of Dr. Stawell. He desired to thank members most heartily for their patient hearing and cordial vote.

The PRESIDENT then announced that the result of the ballot for members of Council and Committee had resulted in the following members being elected:—Drs. W. R. Boyd, G. T. Howard, A. Lewers, Felix Meyer, F.W.W. Morton, W. Moore, W. Beattie Smith, and A. Jeffreys Wood.

The meeting then terminated.

Queensland.

THE annual meeting of the Queensland Branch was held on Friday, December 6th, at the School of Arts, Ann-street, Brisbane; Dr. Love (president) in the chair, and a fair attendance of members.

DR. LOCKHART GIBSON showed a child, under 1 year, who had been born with defects due to the imperfect closure of the upper bronchial clefts, and with development of connective tissue excrescences in them, and who had also peculiar developments of connective tissue under the conjunctival epithelium. This last had, as we shall see, been due to ecto-dermic inclusions at the time of closure of the ocular cleft. The child had rounded masses of tissue under the conjunctival epithelium, suggesting to appearance and touch white fibro cartilage and none of them in any degree pedunculated. In each eye one large mass of this substance was situated in the sclerotic and partly in the palpebral conjunctiva, but in each eye a mass existed on the cornea, as investigation has shown, under the corneal epithelium, but not under the anterior limiting membrane. The largest corneal mass was in the left eye, and has been removed. Its scar will show you its extent. This nodule had two-thirds of its extent over the cornea,

reaching and slightly overlapping the edge of a fairly small pupil. The other third extended over the sclerotic. The scar on the cornea would be about covered by a portion of a three-penny-bit, with its edge just overlapping the pupil's margin. When dissecting this off I had to use a very sharp Graef's knife, and found, as I had hoped, that the full thickness of the cornea lay below, and that the layers of the cornea exposed by its removal had their usual transparency. There is, of course, now a fine opaque superficial film of scar tissue in place of the growth. The other eye serves to show you what the operated eye was before interference. The mass in this eye, though larger, covers the cornea to a less extent. Dr. Love has kindly made sections of the tissue removed, and a very good specimen is under a half-inch objective to-night. It is composed of dense connective tissue and beset with hair follicles and sebaceous glands and a few sweat glands, and covered by stratified squamous epithelium not unlike corneal epithelium. The anterior limiting membrane of the cornea is not found under the epithelium, because it is part of the corneal substance, whereas the nodular outgrowth was in the position of subconjunctival tissue, and, therefore, superficial to the anterior limiting membrane. No hairs had erupted. The nodules were evidently caused by ecto-dermic inclusions in the shape of hair follicles, sebaceous glands and sweat glands, and these had been surrounded by connective tissue outgrowths from the meso-derm.

The HON. SECRETARY read for Dr. Falkner notes of cases treated with Calmette's serum. (See page 623.)

The report of the Council and the Treasurer's statement were read and adopted.

The Librarian's report was read, and a vote of thanks, proposed by Dr. HOPKINS and seconded by Dr. ALEX. MARKS, was passed to Dr. Brockway for the work done in connection with the library.

The scrutineers announced the result of the ballot-papers as follows:—President, Dr. Lockhart Gibson; vice-president, Dr. L'Estrange; treasurer, Dr. Carvosso; secretary, Dr. Brockway; auditors, Dr. E. Bourne and Dr. E. Ure; council—Drs. Espie Dods, J. Cameron, Scott and Halford.

The retiring president then read his address, and a vote of thanks was passed to him for his services during the year.

West Australia.

THE ordinary meeting of the above Branch was held at the Perth Public Hospital on October 16th, 1907. Present: Dr. Thorp (in the chair), Drs. Randell, Tymms, Officer, Flecker, Blackburne, Martin, Gertrude Mead, Cuthbert, and Brown. Miss Lowe, and Drs. Gerrard and Campbell were present as visitors.

The minutes of the previous meeting were read and confirmed.

Dr. MARTIN showed a case of embolism of the central artery of the retina in a young man with no history of any previous illness or ill-health. Examination of the heart to discover source of the embolus had led to the discovery of valvular disease, and also a probable fusiform aneurism of the ascending portion of the aortic arch.

The resignation of Dr. H. E. Astles, who has left the State, was received with regret. Further correspondence was received from Dr. T. B. Belgrave about the management of the up country subsidised but non-Government hospitals.

Miss LOWE, the principal of the James-street State School, read a paper entitled "Aspects of Child Life," suggesting some interesting points of comparison between Australian and English children, of which

latter she had had extensive experience; the difference, it was pointed out, in the physical and mental being due to climatic and social influences, and, as such, being a reflex of the national life in Australia. The paper mentioned also some incidents and conditions met with in personal experience, and which bore on the above points, principally from the psychological point of view. It also suggested the benefit to be derived from the institution of a systematic child study, of which associations exist both in England and in Australia, though nothing in this direction has yet been done in W.A.

Drs. THORPE, BLACKBURNE and TYMMS discussed the paper, and the meeting closed.

South Australia.

THE monthly meeting was held at the University on Thursday evening, October 31st. Present: The President, Dr. Evans, in the chair, and 25 members.

Living Exhibits.—Dr. Lendon showed a case of cerebral diplegia of obstetric origin.

Pathological Specimens.—Dr. J. C. Verco showed a specimen of contracted liver, accompanied by a great enlargement of the umbilical vein, and by the presence during life of a murmur developed in the right internal mammary vein.

Dr. T. G. Wilson showed a large tumour which he had removed from the pelvis of a woman aged 48. It was connected with the uterus, and was adherent to the small intestine, six inches of which had to be resected.

Dr. Morris showed a specimen of a cerebral tumour, the nature of which had not yet been determined.

The ordinary general meeting then resolved itself into a special meeting to consider a communication received from the Council of the Association and to take a referendum in the matter.

A discussion, in which Drs. Reissmann, Hayward, Swift, Lendon and J. C. Verco joined, followed.

It was decided, Dr. Reissmann dissenting, to support the action of the Council. The motions on which the referendum was ordered were put to the meeting *en bloc*, and carried by 25 votes to 1.

The special meeting then closed.

The minutes of the last ordinary monthly meeting were taken as read.

Dr. J. C. VERCO then read his paper on "Murmur Developed in the Right Internal Mammary Vein." (See p. 613).

The paper was not discussed.

Dr. FRANK MACAREY then read his paper on "Surgical Experiences in the Upper Abdomen." (See p. 620.)

There was no discussion.

The meeting then terminated.

THE ordinary monthly meeting of the above Branch was held at the University on November 28th at 8 p.m., and was devoted to an exhibition of patients and specimens. The President (Dr. Evans) in the chair; 35 members present.

Pathological Exhibits.—

Dr. Brummitt showed a specimen of membranous colitis. The case threatened to be fatal. It was suggested by Dr. J. A. Hamilton that appendicostomy should be performed, and that the large intestine should be irrigated through the opening.

Dr. J. A. G. HAMILTON showed (1) a specimen of fibro-myoma of the uterus; the left ovary and fallopian tube appeared to be congenitally absent. (2) A large cervical fibro-myoma.

Dr. T. G. WILSON showed a specimen of adenocarcinoma of the uterus which he had treated by abdominal hysterectomy.

Dr. H. S. NEWLAND exhibited membranous shreds passed per rectum by a woman suffering from gallstones. He also showed a large gallstone which the patient had passed. This had ulcerated through the wall of the gall-bladder into the colon, and thus caused a localised colitis and the passage of membrane.

Dr. REISMANN gave a demonstration of the formalin-permanganate method of disinfection.

Clinical Cases—

Dr. POULTON showed the following case:—A man, *et.* 50, with epithelioma of penis. Circumcised in January, 1906; did not heal on one side of penis. A wart-like growth appeared and gradually increased in size; at one end circumcision normal. No specific history. On admission three months later there was a fair-sized fungating mass on left side of penis behind the glans; the surface was covered by a yellowish offensive discharge. The edges of the ulcerated area were definitely raised, rolled out and indurated. Two small ulcerated areas on glans penis, edges of which were not hard. The patient was steadily losing weight, 11 lb. in the three weeks before admission. Inguinal glands on both sides were harder than normal, but scarcely, if at all, enlarged. Under ether the penis was amputated by a circular incision close to the scrotum. An incision was then made backwards along the raphe and the corpus spongiosum dissected out. The crura were detached on either side from the pubic arch and removed. The cut end of the urethra was sewn all round to skin-edge by horsehair sutures, thus forming a new external meatus level with the skin. The direction of flow of urine from this artificial external meatus was downwards and slightly forwards. The inguinal glands on both sides were also removed at the same time. Drains were left in for a week, the wounds healing nicely. Urine was drawn off by a rubber catheter for a few days, after which the patient was able to pass it quite easily. Since then patient has had no trouble with micturition, and at present, 20 months after the operation, the patient is in good health and without any sign of recurrence. Sections cut showed epithelioma.

Dr. MORRIS showed a man who had suffered from an injury to his cervical spine. He now presented an extraordinary exaggeration of all his reflexes below the neck.

Dr. W. T. HAYWARD showed a case of hemiplegia in a young man, consequent on enteric fever.

Dr. H. S. NEWLAND showed for Dr. Clive Newland, of Morphet Vale, a woman whom he had formerly treated for Graves' disease, but who had recently developed myxoedema.

Dr. H. S. NEWLAND showed a series of cases of infantile paralysis in which he had done tendon transplantation and arthrodesis. He also showed for Drs. Lendon and Brummitt other cases not yet operated upon, and asked members for suggestions as to treatment.

The PRESIDENT (Dr. Evans) then proposed the following motion—"That this meeting considers that the time is opportune for the Branch to acquire rooms of its own, and that subscriptions and donations be invited towards an endowment fund for this purpose." He said: The S.A. Branch of the British Medical Association is now in the 29th year of its existence; it has a roll of 150 members. Since its inception it has never had a home of its own. Formerly the meetings were held in the out-patient department of the Adelaide Hospital; later on, under stress of circumstances, we migrated to the University, where we have been located since. Neither the hospital nor the university authorities have ever charged us any rent for the use of the premises we have required; for the privileges we have

enjoyed we have always been duly grateful. It is not that we are in any way dissatisfied with our hosts—indeed, quite the contrary is the case,—but that some of us are in favour of having premises of our own wherein all business might be transacted and where we might have a library of current medical and surgical literature. Many other members besides myself have felt this want, and some have given substantial proof of their wishes, as I shall mention later on. The Council does not advise members to agree to or expect them to agree to any scheme but one that will ultimately establish us in premises of a similar kind to those of the parent Association. I am informed by our secretary that of our annual subscription about £2 per head is swallowed up in expenses, leaving only a small surplus. The treasurer of the Branch informs me that the credit balance amounts to about £250, of which £100 is invested in Government securities at 3½ per cent. per annum. I have mentioned these financial matters to show that the Society is far short of sufficient funds wherewith to embark on such an enterprise as providing premises without calling upon the members to voluntarily subscribe the needful amount. At the last meeting of your Council it was suggested that members be asked to subscribe to a fund to be called "The Endowment Fund," which money should be invested, and the interest derived therefrom should be used for the expenses necessary for the undertaking. The amount required to be raised would, of course, have to be a substantial sum, so that the enterprise would be on a sound financial basis. This Council meeting was held only a few days ago and already five members have signified their willingness to donate £50 apiece to this fund, and others have promised smaller amounts; the total amount promised now is over £300. Other members would like to hear the opinion of this meeting before committing themselves to any definite line of action, and others again are willing to help the scheme by an increased annual subscription. No specific amount is asked, members themselves being the best judges of what they can afford to give. I am informed, and I hope correctly, so that when the proposed charter is granted to the British Medical Association, that body will be able to subsidise such undertakings as we propose. If so, we might in the course of a few years be able to purchase our own premises and so dispense with a landlord—a remote consummation of our hopes, but one none the less earnestly to be desired. If the scheme be accepted by this Society and the fund started, it will be necessary to elect trustees in whose name the property will be vested. It has been suggested that our Branch, situated as it is without property of any kind, has missed bequests of money, books, etc.. If we were to start the proposed endowment fund, even if we did not raise a sufficient amount at first to get premises, at any rate there would be something for generously disposed people to give to. We have missed any chance we might have had with the Morgan Thomas and Davies Thomas Library bequests. I understand that the Royal, the Geographical, the Photographic and the Law Societies, also the Society of Arts, have their premises rent free; and it has been suggested that an endeavour be made to secure our proposed premises on such conditions. Whether or not there is any hope of our being so fortunate, I have been unable to learn. Although some country members have approved the scheme and promised support, others think that they would derive little benefit from the realisation of the scheme; but I think quite the contrary would be the case. Whenever members come to town the rooms would be a place where they could meet their urban

brethren with advantages to both sides. A country president could meet his council in the Society's own home, and many other advantages would accrue to the members, either town or country, by the facilities for social intercourse that such premises would afford. Country members also say that a library of current medical literature would be of little or no use to them; but I think that satisfactory arrangements, at small cost, could easily be made with the librarian to supply whatever book or periodical that might be required. I am fully aware that this matter will require long and earnest consideration, and many details will have to be worked out. I expect that the scheme will meet with a certain amount of opposition. I hope such opposition will be directed towards removing anything of an unsatisfactory nature, and I hope that members will give their opinion freely. I suppose everyone present admits that we should make an effort in the direction mentioned. We are becoming a large body—there are 150 members, as I said before—and I hope the community considers us an important body. It is time that we made a united effort to secure quarters of a nature suitable to our requirements.

Dr. REISMANN seconded the motion, and pointed out that a library could be started.

Dr. SWEETAPPLE supported the scheme.

Dr. POULTON opposed the scheme. He thought that the University rooms had always served the purpose very well. He objected to an endowment fund being formed. He said some members would give large sums, and in that way would make it difficult for others to use the rooms, who, like himself, could not afford to give a generous donation.

Dr. SWIFT also opposed the endowment scheme, though he believed in the Branch having its own rooms. He thought that the Branches in the other States should be written to and asked if they had rooms of their own, and how they acquired them.

Dr. W. A. VERCO thought that the difficulty might be overcome by forming a company and getting members of the Branch to take up shares.

Drs. Frank Magarey, Gunson, W. T. Hayward and Newland supported the proposal.

Dr. J. C. VERCO proposed the following amendment—“That this meeting affirms the desirability of the Branch having a building of its own for its meetings, a library, and for other purposes.”

Dr. SWIFT seconded.

Dr. W. T. HAYWARD supported the proposal.

The original motion was then withdrawn and the amendment carried unanimously.

The meeting then terminated.

Dr. SWIFT seconded.

Dr. BENHAM spoke on the question of the wrongful use of prescriptions by patients. He stated that he had printed on all his prescriptions the words “Not to be repeated after days,” and explained to his patients the danger of using prescriptions for other purposes or at other times than those for which they were issued. In his experience he had found the practice to work satisfactorily, and his patients to be grateful for the advice given them.

This suggestion of Dr. Benham's met with the approval of the meeting, and it was thought advisable that a similar procedure be recommended to the members of the Association.

Several members spoke on the question of lodge grievances; but as the question was still under the consideration of the lodge secretaries it was thought advisable to defer further discussion till a later meeting, copies of the proposed alterations being handed to the members present for perusal at their leisure.

The motion was then put and passed.

Dr. SWIFT read the balance-sheet, and moved its adoption. He stated that there were at present 80 members—ten more than last year—and that consequently the financial position was very satisfactory. He regretted the dilatory way in which subscriptions were paid, and hoped members would be more prompt in the future.

At the suggestion of Dr. Harrold the names of the members were read out, and it was resolved that a printed list should be issued to all the members and that an endeavour should be made to get the whole of the profession to join, so as to be able to more effectually combine for the purpose of securing reforms.

Dr. SWEETAPPLE seconded Dr. Swift's motion, which was then put and passed.

The PRESIDENT stated that he was sorry that no nominations for office-bearers had been forwarded, and declared the following elected:—President, Dr. W. T. Hayward; treasurer, Dr. Swift; secretary, Dr. Cavenagh-Mainwaring; auditor, Dr. A. E. Wigg; ordinary members of Council, Dr. R. E. Harrold, Dr. J. E. Good.

Dr. EVANS asked the meeting what was the proper course to adopt when members of the police force requested information as to whether a medical man had recently attended certain cases, for the purpose of discovering offenders against the law.

The opinion of the meeting was that no such information should be given, and the matter was referred to the Council to ascertain the legal duty of a medical man in such a position.

Dr. BENHAM gave notice of moving an alteration in rule 13 at the next annual meeting.

The meeting closed with a vote of thanks to the office-bearers for their work during the year.

REPORTS OF OTHER SOCIETIES.

Medical Defence Association of South Australia.

THE eighth annual meeting of the Medical Defence Association was held at the University at 8.30 p.m. on Thursday, December 5th, 1907. Present: Dr. Hayward (president) in the chair, Dr. J. Evans, Good, A. A. Hamilton, Poulton, Sweetapple, Lendon, Benham, Harrold, Cudmore, Bennin, Newland, J. A. G. Hamilton, Swift and Cavenagh-Mainwaring.

Minutes of last annual meeting were read and confirmed.

Dr. NEWLAND proposed and Dr. BENHAM seconded the proposition that the annual report be taken as read.

The PRESIDENT moved the adoption of the report, and gave a short address on the subject matter of the report.

ANNUAL REPORT.

The Council of the Medical Defence Association have much pleasure in presenting to the members the eighth annual report.

They are glad to say that the Association has now over £500 to its credit, and that in consequence the annual subscription will be reduced in future to 5s for those members who have contributed £5 5s or more to the funds, the Council retaining the power to revert to the original subscription if at any time it should be necessary.

The Council would again urge the members to be prompt in their payments of subscriptions, which are due on the 1st day of January, as much clerical work

and both will be saved thereby. Notifications of amounts due are enclosed with report.

Eight meetings of the Council have been held during 1907, and many important matters of general interest to the profession have been considered. The members also, the Council are glad to note, are making increased use of the machinery of the Association for private grievances.

On consulting the leading life assurance offices it was found impossible to obtain exemption on moneys paid in life assurance for the purposes of the income tax, and the matter was consequently not proceeded with. The following information obtained, at the request of one of the members, may, however, be of interest to the members:—Where a person has a capital account for the purposes of income tax returns, he can deduct the interest paid on that amount, if the money be borrowed, but cannot do so if the money is part of his own private capital.

The question of giving gratis certificates of health to children for school purposes has been again before the Council, who desire to point out once more that there is no onus upon the medical profession to do so, nor, in their opinion, is it advisable that such responsibility should be undertaken without adequate remuneration.

Two interviews have taken place with representatives of the Pharmaceutical Society, and the questions at issue between the two professions have been discussed thoroughly and in a friendly spirit. The Pharmaceutical Society pointed out that very little counter prescribing, "except in cases where self-medication would otherwise take its place," was done by reputable chemists; but promised to use every influence with its members to discourage the practice. With regard to the use of prescriptions for purposes for which they were not issued, they pointed out that the public were fully aware that the prescription belonged by law to the patient to whom it was issued—a fact which the Defence Association has had verified by counsel's opinion—and that consequently they were unable to refuse to return the prescription to the patient. They promised, however, to do all in their power to discourage and check the practice.

On their own account the Pharmaceutical delegates pointed out that the fact of frequently ordering proprietary medicines and rare drugs, which were only on the market for a short time, resulted in a considerable monetary loss from the stocking of such drugs, which in a few months were never ordered again. They asked the medical profession to follow as far as possible the British Pharmacopoeia in prescribing, and wished to bring under their notice the Australian Pharmaceutical formulary, in which appeared similar and equally efficient preparations of local manufacture, similar to some of the more common proprietary preparations. The Council of the Defence Association think they may

reasonably recommend their members to consider these suggestions favourably.

The Council is at present considering the redress of grievances between lodges and lodge surgeons. Circulars were sent to all the members of the profession, asking for suggestions, and these have been summarised and discussed at a meeting held between the lodge secretaries and a deputation from the Council. The deputation was well received, and the reasonableness of most of the demands were admitted. The matter has, however, been held over till after the end of November, to give the secretaries time to consider the proposals and to get the opinion of their members upon the question.

The Council hope to receive an answer before the annual meeting, but in any case the suggested reforms will be discussed then, and it would be of great advantage if some country members could manage to be present and help the meeting with their advice, as far as the matter affects the country members.

Acting upon information supplied by one of its members, the Council approached the Attorney-General with regard to an inquest which had been deemed unnecessary by the coroner, though the circumstances of the death had been very suspicious. The Attorney-General saw fit to order the inquest to be held, with the result that the cause of death was altered from the original one given to one a little more in accordance with the symptoms presented before death. At the same time, it provoked a spiteful attack upon the doctor by the coroner in his privileged and official capacity, an attack which was fully answered by the Council in the public press.

The authorities of the Destitute Asylum have been interviewed with the object of obtaining extra remuneration for special services rendered by medical men appointed to attend the destitute poor, on the lines of the agreements in force in England for similar appointments. The matter is not yet settled; but the authorities at present cannot see their way to make the desired alteration.

A suggestion from the Queen's Home, that, in consequence of the increased cost of living, the wage limit entitling patients to admission be raised from 40s to 45s per week, has been sent to the Council, who, however, thought the present limit high enough, and have intimated this to the secretary of the institution.

The question has come before the Council whether there is any objection to a medical man contracting to attend lodge patients in special subjects, and the Council have replied that they could see no ethical objection to such a proceeding, but must leave the question of the advisability of it to the specialists themselves.

Treasurer's statement for year ending November 30th, 1907:—

ASSETS.	£	s.	d.
Balance in Savings Bank, Nov. 30, 1905..	273	1	1
On fixed deposit, Bank of N.S.W. ..	200	0	0
Interest, Savings Bank	7	7	9
Seventy-six subscriptions	79	16	0
Two arrears.. ..	2	2	0
	£562	6	10

LIABILITIES.	£	s.	d.
Printing	5	11	0
Stamps	2	15	0
Porter, gratuity	0	5	0
Legal expenses	2	4	6
Exchange on country cheques	0	2	0
Placed on fixed deposit, Bank of N.S.W., February, 1906	200	0	0
Placed on fixed deposit, Bank of N.S.W., April, 1907	100	0	0
Balance, Savings Bank, Nov. 30, 1907..	240	8	4
Balance in hand	2	1	0
	£562	6	10

REVIEW OF CURRENT MEDICAL LITERATURE.

MEDICINE.

Phlegmonous Gastritis.

Cecil (*Johns Hopkins Hospital Bulletin*, September, 1907) remarks that phlegmonous gastritis, or suppurative inflammation of the stomach wall, may be diffuse or circumscribed, affecting in both instances the submucosa. In the circumscribed form there may be a clearly defined tumour-like abscess set, as it were, in the submucous coat, and varying in size from that of a hazel nut to that of an orange. In the diffuse form, on the other hand, a large part of the stomach wall becomes extraordinarily thickened by the infiltration of the layers, and especially the submucosa, with a purulent exudate. These conditions are regarded as primary in the stomach when no extensive area of infection elsewhere makes it probable that they are metastatic in origin. Usually the ordinary pyogenic organisms are concerned as the cause. The diffuse form is more common than the circumscribed, but both are rare. The first case described was of the circumscribed form, observed by Varandœus in 1820. The diffuse form was not described until about 150 years later, when a case was studied by Andral and Cruveilhier. A review of the various cases reported since 1896 is then given, and Cecil next describes the following case, which occurred in the Johns Hopkins Hospital. A woman, 25 years of age, with no family history of importance in the case, had complained for two years of pains about the body, called "muscular rheumatism," and for 12 months previous to admission of pain in the epigastrium and back, with complications, but no history of nausea or vomiting. Eight days before death, after a day's outing, she vomited a quantity of greenish fluid and complained of severe abdominal pain. Vomiting continued and became very frequent, the vomit consisting of yellow feculent very offensive fluid. The abdomen became extremely sensitive. Diarrhoea ensued, with frequent evacuations. On admission to hospital she was found to be much distended, and suffered excessively from pain and tenderness in the abdomen. An exploratory laparotomy revealed the presence of an abscess between the stomach and the liver, and a good deal of matting together of the intestinal loops about this area. The abscess was drained, but the patient died an hour after. At the autopsy the following conditions were found:—An area of inflammation in the upper abdomen, the omentum much thickened and bound to the liver by adhesions; no general peritonitis. The stomach is pale and greenish, with small hæmorrhages upon its surface here and there. The abscess, which was drained, lay in front of the stomach, above its pyloric portion, bounded above and toward the median line by the liver, and matted tissues about the round ligaments. The lymphatic glands in this region are markedly enlarged. Between the stomach and liver, which are adherent to one another, there is a second abscess cavity filled with thick turbid fluid. The pancreas is normal, and there is no fat necrosis. The stomach is not distended. Its surface is roughened by fibrin, with flecks of hæmorrhage. For a distance of 1 cm. above the pylorus the mucosa is folded and easily movable. Above this it is stretched tightly over the swollen underlying tissue and cannot be moved. Throughout an area which extends for a distance of 10 cm. and involves the whole circumference of the stomach, the gastric wall measures 12 mm. in thickness. At its thickest part it is not very

firm, but rather boggy, being softer in some places than in others. On the cut edge of the stomach wall the muscle layer is very distinctly visible and has a translucent greenish appearance. The subserous tissue is more opaque and dull-looking, and is slightly thickened, but the submucosa is enormously thickened. It is moist, dull yellowish-green, and rather opaque, with slightly infected minute vessels. The infection is relatively very slight, and a turbid greenish fluid exudes from the cut surface. The mucosa does not seem particularly thickened, although it is rather moist and swollen looking. There are no ulcerations visible, but minute white spots with a dark centre are scattered over its surface, and are probably lymphoid nodules. The remainder of the gastric mucosa is practically normal in appearance except for a few minute hæmorrhages. Microscopical examination shows that the thickening of the stomach wall is due to an extraordinary infiltration with a purulent exudate. Bacteriological examination was unsatisfactory; the only colonies of bacteria which were found to grow were those of *Bacillus coli communis*, but the other organisms found, which were probably the causative factors in the disease, did not grow. They were diplococcus forms, sometimes somewhat lancetate in form, sometimes almost like short bacilli.

Typhoid Fever.—Death before Ulceration.

White (*Montreal Medical Journal*, September, 1907) records the following case:—A man *et. 25*, by occupation a fireman, was admitted to hospital complaining of headache, diarrhoea, fever, loss of appetite and weakness. His illness had an indefinite onset. He was in a semi-delirious condition on admission to hospital, and showed marked signs of nervous prostration. A few rose spots, fading on pressure, were present on the lower part of the chest and upper part of the abdomen. Temperature ranged from 104° to 106°, and it did not respond to cold bath. Pulse varied from 96 to 112, of small volume, low tension, regular and dicrotic. Heart sounds distant and weak. Blood count showed 6200 leucocytes. He complained of abdominal pain, and the abdomen was markedly distended. He vomited several times, and had diarrhoea and incontinence of faeces. The spleen was enlarged and easily palpated. He died on the seventh day of the disease. At the autopsy there were innumerable small discrete hæmorrhagic spots in the subcutaneous tissue over the back on the anterior surface of both thighs, the sides of the abdomen, and about the shoulder joints. The mesenteric glands were enlarged, soft and hæmorrhagic; retroperitoneal glands were also enlarged. The spleen was enlarged. The mucosa throughout the jejunum, ileum and colon was swollen and hyperæmic. All the Peyer's patches were greatly swollen and project above the general surface in large flattened plaques, which are soft, intensely reddened, and show no ulceration. The solitary follicles both in the small bowel and in the colon stand out very prominently as small elevated nodules 2 to 4 mm. in diameter, are soft, and of a dark red colour. No ulceration is to be seen anywhere. Bacteriological examination revealed the presence of the *Bacillus typhosus*. The histological lesions in the various organs, such as the intestines, spleen and lymph glands, are specific of *Bacillus typhosus* infection. In the sections of the spleen the most noticeable feature is the presence of great numbers of large phagocytic cells containing chiefly red blood corpuscles. These cells are found filling up the blood sinuses, and often contain 20 or more erythrocytes. Many of the lining endothelial cells are swollen and show mitotic figures. In sections of Peyer's patches and of the lymph glands the most

noticeable feature was again the presence of large numbers of phagocytic cells, similar in every respect to those in the spleen. In the liver the blood channels were occluded by these phagocytic cells, giving rise to definite areas of focal necrosis. As a rule death from typhoid fever does not occur until the third week of the disease or later. In this case death occurred on the seventh day, before ulceration had taken place in the intestines, and this afforded a very exceptional opportunity of studying the earliest histological changes. These early lesions occur almost exclusively in the lymphoid tissues of the intestine, the lymphoid glands and the spleen. They are characterised by the presence of enormous numbers of large epithelioid cells which arise from the endothelial cells lining the lymph channels. This great proliferation of the endothelial cells, and later their increase in size resulting from their phagocytic function, gives rise to the splenic and lymphatic enlargements. Mallory has pointed out that this proliferation is due to the direct action of a diffusible toxin, and, further, that a proliferation of the endothelium to such an extent as described above is characteristic of the poison elaborated by the bacillus typhosus. Other bacterial toxins stimulate endothelium to proliferation, but in no infection do we meet with any such picture as that in typhoid fever. In any ordinary case of typhoid fever—that is, one in which death occurs during the third week of the disease or later—we find these large phagocytic cells free in the blood channels and lymph spaces in the active state of proliferation as in this case.

Disseminated Subcutaneous Fat Necrosis in an Infant.

Fabyan (*Johns Hopkins Hospital Bulletin*, September, 1907) reports the case of an infant born at full term of a healthy single woman, *et.* 22 years. The present pregnancy was normal, but the mother had a slight puerperal infection and developed mumps two days after delivery. The child, a male, was somewhat asphyxiated at birth, but was revived in 15 minutes. He was well developed, weighing 2970 grms. at birth. He suffered the usual initial loss of weight, but 14 days later, when he died, he weighed 3050 grms. He was breast-fed every three hours the first two days until mumps developed in the mother, when he received milk 1 oz. with sodium citrate gr. 1 every two hours. On the third day of life numerous so-called "abscesses" were seen on both cheeks, both forearms, and on the back of the head, on buttock, and on the right leg. The skin over these swellings was injected. All but the abscess of the right cheek were described as not going on to suppuration and became absorbed. Two drams of pus were obtained on incision of the swellings of the right cheek, after which healing apparently began. Cultures of the material obtained remained sterile. The child died from asphyxia from turning over on its face on the 14th day. An autopsy was performed 13 hours after death. The subcutaneous tissue around the site of the incision in the right cheek was indurated, and on incision a small softened area had the appearance of tallow stained by blood; the periphery, that of typical fat necrosis. The various areas described clinically could be made out as localised areas of induration in the subcutaneous tissue, which rarely caused any distinct swelling or discolouration of the skin. Other nodules were found on the right foot and leg, all showing a typical feature of fat necrosis. In some the central portion had begun to soften and could be exposed on slight pressure. It was composed of a greenish-yellow material. Cultures from these various

areas remained sterile. There were no macroscopic areas of fat necrosis about the pancreas or throughout the abdominal cavity. Sections of pancreas failed to show any pathological lesions. Sections from the right cheek and other nodules showed the typical appearances of fat necrosis. In this case, then, there were multiple areas of fat tissue necrosis in the subcutaneous tissues of a well-nourished but not obese infant, and without any apparent involvement of the pancreas. Nothing in the child's condition suggested any serious disease, and the death was purely accidental. Fat necrosis has been described as a diseased entity, but Opie believes that it is always due to a pancreatic lesion. He considers that fat necrosis bears the same relation to pancreatic disease that jaundice bears to hepatic disease. However, cases have been recorded in which no lesion of the pancreas was noted. Hausemann reports a case of subcutaneous fat necrosis in which he was unable to find any lesion of the pancreas except what might have been due to post-mortem changes. The process is considered by Chiari comparable to any retrograde metamorphosis, degeneration of the tissue being followed by simple necrosis. He has seen marked lesions of the pancreas without fat necrosis and *vice versa*, and concludes that they are not closely related. Chiari found fat necrosis in an infant one day old, with extensive syphilitic changes, especially of the pancreas, and this is the only case apparently on record in which fat necrosis occurred in very early life. The author concludes as follows:—In an apparently well-nourished infant there were found typical areas of fat necrosis. No bacterial aetiology could be demonstrated. No lesion of the pancreas was found, nor were there lesions above the organ to suggest it. The most advanced lesion lay in the right cheek, in close proximity to the parotid gland. Considering the fact that the parotid glands resemble the pancreas rather markedly in structure and function, developing at about the same period of foetal life, and that the mother developed mumps two days after the birth of the child, is it not possible that the gland possesses at this early period a lipolytic ferment which disappears in later life, and that an inflammation of the gland was the cause of the fat necrosis in this case? The period for such extensive involvement was very brief according to evidence derived from experiments on the pancreas.

PATHOLOGY.

Hæmolytic Properties of Organ and Tumour Extracts.

Weil (*Journal of Medical Research*, May, 1907) undertook the investigation of the causes of, or the factors contributing to, the secondary anæmias of malignant tumours, and since it seemed probable that these anæmias were partly due to a process of auto-hæmolysis, the hæmolytic properties of organ and tumour extracts were made a subject of special study. He has summarised his conclusions as follows:—*Extracts of Normal Organs*.—1. Extracts of normal organs (liver, kidney) hæmolyse red cells of the same species of animal (iso-hæmolysins), and even of the same animal (auto-hæmolysins), but the hæmolytic power varies considerably, and may be altogether absent. Again, there may be hæmolysis at a high dilution of an extract, but none at low dilutions—a zone of optimum concentration. 2. If the organ (kidney in experiments) is thoroughly freed from blood the hæmolytic activity of its extracts is to a great extent lost, and may disappear altogether. 3. The iso- or auto-hæmolytic power is due in part to the blood contained in the organ. 4. Addition of

entire blood, or, separately, of leucocytes, and serum, to the bloodless organ extracts, however, diminishes whatever hæmolytic activity the extracts may possess. 5. But the addition of red blood cell extracts will increase (activate) the hæmolytic power of bloodless organ extracts. 6. In bloody extracts it is the red blood cell derivative (analogue of the complement) plus the hæmolytic principle of the organ extract (analogue of the amoceptor) which causes hæmolysis. 7. In bloody extracts there is also an anti-hæmolytic principle (serum, etc.), which may inhibit hæmolysis in low dilutions, while permitting it in the higher. 8. This complexity of factors accounts for the great variability in the hæmolytic power of bloodless organ extracts. This power probably depends to a great extent on the degree to which the red cells have been broken down during the process of extraction. 9. Experiments have shown that the hæmolytic principle (amoceptor analogue) of organ extracts can be anchored to red cells. The red cells thus sensitised can be washed and then hæmolyzed by the addition of red blood cell derivative (complement analogue), which latter is of itself inactive.

Tumours.—1. Tumours differ greatly in their hæmolytic activity, according to whether they are necrotic or non-necrotic. 2. Non-necrotic tumours are much less auto-hæmolytic than are necrotic tumours. 3. The hæmolytic activity of non-necrotic tumours can be increased by the addition of red blood cell derivative. Extracts of such tumours are in every respect comparable to extracts of normal organs, but are more active. 4. The hæmolytic activity of necrotic tumours is not increased by the addition of red blood cell derivative, nor decreased by serum or leucocytes. In this case the hæmolytic principle is entirely different from that of organ extracts or growing tumours, and is the result of necrosis (autolysis) with the formation of simple hæmolytic compounds, which are dialysable. 5. The anæmias of malignant tumours are probably due in part to the hæmolytic and toxic action of such products of necrosis.

The Pathology of Exophthalmic Goitre.

MacCallum (*Journal of the American Medical Association*, Oct. 5, 1907), after some preliminary remarks on the various views which have been advanced on this question, records his investigations of material obtained from 60 cases, most of whom had been operated on by Halsted for the relief of symptoms more or less typically those of exophthalmic goitre. He gives a full account of the histological conditions met within the thyroid, parathyroid and thymus glands, also of the sympathetic and central nervous systems; and he finds that on the whole the only lesions in this disease which are palpable and constant are those of the thyroid, and of the lymphoid structures and thymus. All of the others are so indefinite and so often completely missed that it is difficult to convince one's self that they play a primary rôle in the disease. With the appearance of definite symptoms of exophthalmic goitre there is always some change in the thyroid. It may be possible to find only the beginning of this change in some part of the walls of some of the alveoli; in more advanced cases the typical change with proliferation of the epithelium and folding of the walls of the alveoli is invariably found. This is anatomically the change produced in compensatory hypertrophy when we excise a part of the normal gland, but that compensatory hypertrophy never produces a mass of tissue in excess

of the normal, and no symptoms result. It is the same change, too, which occurs in sheep and dogs, sometimes with very marked enlargement of the thyroid; but these animals show no definite symptoms at all like those of exophthalmic goitre. In exophthalmic goitre there must be something more than mere hypertrophy of the thyroid, either in the nature of the secretion or in some other factor quite aside from the thyroid. Nevertheless it is certain enough that the thyroid is hypertrophied, and the current opinion is that it is functionally over-active and producing an excess of secretion. The removal of a part of the thyroid improves the symptoms of the disease, and the administration of thyroid extract makes them worse, so that we are almost forced to the belief that the excessive activity of the thyroid is at fault. MacCallum then discusses the question of the probable causation of this hypertrophy. He remarks that the symptoms of the disease are so like those of artificial thyroidism that it is fairly easy to believe that there is this excessive activity and that the other symptoms depend upon the outpouring from the thyroid. But there are no examples elsewhere of the spontaneous hypertrophy and over-activity of an organ to the detriment of the rest of the body. Always it is a lesser hypertrophy or compensatory hypertrophy. But here the inconsistency appears that when a part of the hypertrophied gland is excised the symptoms often disappear. He suggests that the fundamental underlying cause may be some infection, such as influenza, which reaches the thyroid through the pharynx, setting up a non-suppurative thyroiditis, such as has been described by de Quervain, destroying many of the cells, and leaving scars through the gland, after which the remainder becomes hypertrophied and its activity prevented. Some writers have described such a course of events, and a preceding history of pharyngitis or influenza is not uncommon. It is still rather hard to comprehend the overstepping of the normal to such an extent in the process of compensatory regeneration and the production of a harmful organ by a mechanism which usually restores to normal with such precision. In a normal person the symptoms of iodism do not very closely resemble those of the disease; yet it is claimed by Brewer that the symptoms may be made worse or latent symptoms called out by the administration of the iodides. Further, since some of the symptoms are generally referred to disturbances of function of the cervical sympathetic system, it has been suggested that the vaso-constrictor influence of those ganglia over the thyroid may be diminished and that a consequent hyperæmia of the gland may finally bring about an over-activity. However, attempts to study this experimentally by the isolation of the thyroid from all nervous connections have so far led to no result.

Since the more palpable and constant change in the disease is after all in the thyroid gland, all attempts to explain the disease must start with an explanation of the disturbances in structure and function of that gland. We must know definitely whether it is pouring out an excessive secretion into the circulation, and we must be able to recognise that secretion and estimate its amount and its toxic character. Then we must learn whether the thyroid is doing this independently, or whether it is in response to some disturbance in metabolism elsewhere. It seems possible even that it might be in response to a demand only for some other associated substance which brings with it the toxic substance, so that while the thyroid hypertrophies to meet a justifiable demand it incidentally produces a noxious substance in excess.

PÆDIATRICS.

The Effect of Altitude upon School Children in Relation to Physical Exercises.

Dr. Baumann, of Johannesburg (*The British Journal of Children's Diseases*, Sept., 1907) recommends:—1. That before engaging in athletic competitions involving great muscular strength, Johannesburg schoolboys should be subjected to careful preparatory training. Sudden and unprepared athletic efforts are of especial danger to Johannesburg boys, amongst so large a percentage of whom cardiac defects have been shown to exist. 2. That in Johannesburg athletic efforts involving prolonged and severe muscular strain, such as cross-country races, should not be permitted to schoolboys in view of the rarefied atmospheric conditions which of themselves make unusual demands upon the cardio-respiratory mechanism. 3. That a medical man be attached to every school in Johannesburg, under whose supervision all athletic exercises shall be placed, including the medical examination of all intending participants in the severer athletic games and exercises. If over-exertion is capable of doing injury to normal structures, its untoward effects must much more readily be produced when these structures are already unsound, as is the case in 66 per cent. of Johannesburg schoolboys. No boy should, consequently, be permitted to play football or compete in the longer races at athletic sports who has not been found to be physically fitted to bear the strain. For the boys not fitted for these efforts milder exercises, such as walking, cycling, and perhaps tennis, are indicated. That the necessity for these precautions is not appreciated is proved by the relatively large percentage of cases met with in which heart-failure has actually occurred. This disastrous result—for the condition offers grave detriments to future health and activity, and perhaps to life itself—in most instances might undoubtedly have been prevented by the previous medical examination, and exclusion from severe physical efforts, of those boys in whom cardiac defects are already existent.

A Case of Rheumatic Arthritis in a Child of Six Years.

Dr. E. D. Fenner (*Archives of Pediatrics*, September 1907) reports the parents are both strong and healthy, but in the mother's family there has been at least one case of rheumatism; the patient is the oldest of their children, the others being healthy. The child was healthy until he was a year old, when he began to run about with assistance. Later, he had an enlargement of the left wrist. Soon after this his knees began enlarging. He had some pain during the second summer, throughout which time he was constantly sick with derangement of his bowels, and he lost entirely the power of walking. When he was 25 months old he finally took a step alone. Then he slowly began to learn to walk, but always very stiffly. He walks with hips and legs somewhat flexed. The spinal column is rigid. In the neck there is no motion whatever. He can neither bend the neck nor rotate the head at all. All his joints are enlarged. The fingers show deposits about the phalangeal articulations resembling those of gout. The wrists are greatly enlarged. It appears plainly in the X-rays that there has occurred an ankylosing inflammation between the vertebrae, and that similar deposits have occurred about the other joints. The spleen is not perceptibly enlarged, and the lymph nodes are not increased in size, although the mother says that they have been enlarged. Pain has been a minor symptom in this case. He is reported to have improved a good deal in the last few months.

Fat Digestion.

J. P. Sedgwick (*Arch. of Pediat.*, 1906, vol. xxiii, p. 414) reports the results of the study of fat-splitting in the infant's stomach. The experiments were carried out by testing the action of gastric juice on yolk of egg, and are fully described. The conclusions drawn were—(1) There is a fat-splitting ferment present in the infant's stomach; (2) the ferment could be demonstrated very early in life—in the first hours in the rabbit and at least in the second week in the infant; (3) in the infant's stomach itself milk-fat is partially split—in these experiments from 2.9 per cent. to 10.6 per cent.; (4) after the first half-hour the fat-splitting increases slowly but steadily; (5) the acids produced are mostly higher members of the fatty acid series and are derived, in the greater part, from the fat.

The Relative Prevalence of Abdominal Tuberculosis in Children in Great Britain and America.

Dr. John Thomson, Edinburgh (*The British Journal of Tuberculosis*).—Some years ago attention was drawn by Dr. D. Bovaird, of New York, to the striking fact that abdominal tuberculosis in children, which is regarded here as one of the commonest of maladies, is quite a rare disease in the United States. He has since stated that, in a single morning in the Edinburgh Children's Hospital, he was shown more cases of this condition than he had seen in New York during ten years' hospital and dispensary work. A study of American medical literature on diseases of children, and of statistics of British and American hospitals for children, seems fully to confirm Dr. Bovaird's statement as to the surprising difference in frequency of this condition in Great Britain and in America. The object of this note is merely to draw attention to it as a matter of some interest and importance, and one which certainly calls for further investigation. In the children's department, Mount Sinai Hospital, New York, in seven years (1898-1904) there were 2266 patients admitted, and only one case of abdominal tuberculosis among them (i.e., 0.044 per cent.). During the same period there were 80 cases of tuberculous meningitis (i.e., 3.53 per cent.) there. In the Edinburgh Children's Hospital during the same seven years there were 10,213 in-patients admitted, including 378 cases diagnosed as abdominal tuberculosis (i.e., 3.70 per cent.), and 206 of tuberculous meningitis (i.e., 2.01 per cent.). In the Glasgow Children's Hospital there was an even larger percentage of abdominal tuberculosis than in Edinburgh, while that of tuberculous meningitis was practically the same. At Great Ormond-street the proportion both of abdominal and meningeal tuberculosis was considerably less than in Scotland. This is probably due mainly to there being a relatively smaller amount of all sorts of tuberculosis in London than in Scotland. Abdominal tuberculosis seems to be rare in Canada, as well as in the United States. From two recent annual reports of the Children's Hospital, Toronto, we find that out of a total of 1759 in-patients admitted there were only two cases. In the same two years in the Edinburgh Hospital there were 3349 patients admitted, and among them 133 cases of abdominal tuberculosis. It would, of course, be very rash to draw many conclusions from such bald and scanty statistics as those given above. However, they may fairly be claimed as demonstrating the difference in the prevalence of abdominal tuberculosis in children in Great Britain and in America.

MEDICAL MISCELLANY.

It is stated that an antitoxin serum against cerebro-spinal meningitis has been evolved by Prof. S. Flexner and his associates in the Rockefeller Institute. Should the hopes concerning it be realised the event will be truly epochal in medicine, for thus will be found an effectual remedy against a disease which has annually tortured to death 40,000 human beings in the United States alone.

Deaf mutes do not suffer from seasickness, and it is concluded that there is some mechanism in the auditory organ (perhaps the semi-circular canals) which is directly affected by the movements of a vessel at sea acting as a stimulant to the vomiting centre. The sensation in the ears is synchronous with that in the epigastrium, and may be due to change in the equilibrium of the endolymph in the semi-circular canals.

The success of the inoculation campaign in the Punjab in 1902 for fighting the plague is shown in that it was planned to inoculate 7,000,000, but time and organisation did not permit of more than half a million being so treated, and the mortality was reduced to one-twelfth of that of the non-inoculated. Inoculation and the evacuation of an unhealthy locality and rat destruction, it is affirmed, would stop any epidemic.

A memorial tablet was unveiled at the Women's Medical College, Pennsylvania, in memory of Dr. Mary Putnam Jacobi, on May 23rd. The tablet is inscribed: "In memoriam Mary Putnam Jacobi, class of 1864, Woman's College of Pennsylvania, President of the Alumnae Association 1888-1891 and 1894-1895. Ecole de medicine, Paris, class of 1871; professor of materia medica and therapeutics, Woman's Medical College of the New York Infirmary; professor of the diseases of children, New York Post Graduate Medical College and Hospital; fellow of the New York Academy of Medicine and distinguished contributor to medical literature, and one of the most eminent women of her time in the medical profession."

The Medical Society of Athens has appointed a committee to assist in the formulation of a system of classical Greek nomenclature and to collect the classical Greek definitions which may be proposed as substitutes for irregular terms newly introduced into medical literature, and in use both in Greece and in foreign lands. Prof. S. Manginas is chairman, and Dr. Achilles Rose, New York, is a member of the committee.

From October in this year the German Government has enacted that all written or printed praise of a medical specific is forbidden, and all public advertisement. No chemist, moreover, who does not know what a patent medicine is made of may supply it without a doctor's order.

The Radite Company has quite recently started operations in England. Radite powder, composed mainly of pitchblende and radite, and containing radium, should be purchased, say the company, by all persons suffering from pain of any kind, sufferers from eczema, psoriasis, acne, and other skin diseases, and those whose hair is growing thin. The powder costs 5s per oz. As radium bromide itself costs £453,502 per oz., it would be a pretty calculation to ascertain how much radium is contained in radite.

There has recently been an epidemic of gastric symptoms amongst children and others in south-east London who had eaten "Kaloo" nuts. The active principle of these nuts is not known, and it may be that these had decomposed. Kaloo nuts, it is stated, had not previously reached England in bulk. An oil is obtained from a variety of a similar nut in the East, known as kakune-oil; possibly "kaloo" is a Borough corruption of kakune. The nuts are the product of an Eastern tree called *Aleurites Fordii*, and there are various kinds of Aleuritides. The plants belong to the natural order *Euphorbiaceae*, and the most important species is *Aleurites triloba*, known as the candle-berry tree. It grows to a height of 30 or 40 feet and is a native of the Moluccas. It is cultivated in many tropical countries for its nuts, which abound in oil, and when dried are used by the Polynesian Islanders as a substitute for candles.

About the parks and open spaces, particularly on holidays, sweetmeats, ice-cream, lemon and other drinks are largely offered for sale, the whole more or less of an impure character. The sale of ice-cream by Italians should be watched, as it is manufactured in places open to all impurities of the air and insanitary surroundings. The food thus supplied must contain disease germs. The man who retails milk is compelled to keep his premises clean. The purveyors under notice, however, are subject to no such restrictions.

It is a gross anomaly that any quack can practice as a medical specialist provided he does not assume a medical title or claim to be registered. Lately the Veterinary College prosecuted a man at Feltham (England) for describing himself as a "canine and feline medical expert." Defendant kept a sanatorium for sick dogs and cats at Ashford, Middlesex, but it was contended that he did not describe himself as a veterinary surgeon. The magistrate considered he had brought himself within the purview of the Act and fined him accordingly. In the case of a cancer specialist, joint and fracture expert, or specialist in skin or other diseases, a prosecution under the Medical Act would end in failure.

Sir Lauder Brunton, M.D., at the inaugural meeting of the London School of Tropical Medicine, gave an address on "Fleas as a national danger." Yellow fever in the southern States of America, and the black death in the 14th and 17th centuries, he said, could be traced to the flea. It may be thought that the days for such an evil epidemic are past and gone, but sanitary science is no use unless it is put to practical application, and in India at the present moment the ravages of the plague, though not so great as those of the black death, or of the great plague in London, are nevertheless dreadful. Alluding to the theory that rats are the disseminators of disease in India, he suggested that if the Brahmans could persuade the natives to sacrifice a dead rat as often as possible to Kali, the goddess of destruction, rats would be very soon destroyed, and plague would be at an end. It would be difficult for Europeans to effect this; therefore he advocated the appointment of native medical officers of high caste, who might be successful of the efficacy of this method of vermin destruction.

Reports from health officers show that there are over 50 undoubted cases of plague in San Francisco, and about 30 suspected cases under observation. Twenty deaths have been recorded so far, October, 1907.

CORRESPONDENCE.

London.

The Harveian Oration—Tuberculosis Exhibition in Dublin—The Medical Student—Opening of the Medical Schools.

The Harveian Oration was delivered in the Lecture Theatre of the Royal College of Physicians on October 18th by Dr. Frederic Taylor, senior physician to Guy's Hospital. William Harvey first made known his great discovery of the circulation of the blood in 1616, and at his death he bequeathed to the College a sum of money to provide an endowment for an annual oration in which the Fellows should be exhorted "to search out and study the secrets of Nature by way of experiment, and also, for the honour of the profession, to continue mutual love and affection among themselves." In the course of his oration Dr. Taylor pointed out that Harvey's great discovery was preceded by experiments on living animals, and urged the necessity of testing vital operations in life. Opposed to this necessity there existed the humane sentiment which by law restricted the number of vivisectionists and their operations in this country. That policy was saved from disastrous results by the fact that doctors were able to use the knowledge obtained by vivisectionists in other countries. At the present time a movement was on foot to abolish these experiments entirely. The advocates of that movement said that vivisection was useless, but the example of Harvey disproved that assertion. Another allegation was that vivisection was cruel and immoral, but no one surely supposed that the medical profession advocated it except for the benefit of humanity. For centuries animals had been killed for food, slaughtered to make way for human beings, butchered for sport, and kept in captivity for amusement. Why should vivisectionists be more blamed than the people who did those things? As part of their daily lives medical men saw acute human suffering, sometimes borne by persons very dear to them. Was it surprising that they should seek means for the relief of such suffering at the cost of trifling pain to a few of the lower animals? Dr. Taylor concluded by a reference to the recent great advances made in medicine and surgery and to the benefits conferred by Harvey and others on the London College of Physicians. At the conclusion of the address the Bailey Medal was presented by the President of the College to Professor Starling in recognition of his distinguished services to physiology.

The Tuberculosis Exhibition, held in the home industries section of the Irish International Exhibition, was opened on October 12th by the Lord-Lieutenant of Ireland. Prior to the opening ceremony a conference of delegates from different parts of Ireland assembled in the Industries Hall, under the presidency of the Countess of Aberdeen, and various phases of the cause and treatment of tuberculosis were discussed. The Countess of Aberdeen, in opening the proceedings, said the primary object of the Women's National Health Association, under whose auspices the exhibition was held, was to reach the women of the country and to bring the facts home to them as guardians of the homes of the country. Last year nearly 12,000 out of 24,000 deaths resulted from that disease. The exhibition was not intended to remain in Dublin, but would go round the country, and wherever it went it would have friends who would be willing to instruct visitors and teachers and show them the exhibits representing different stages of the disease. There would also be diagrams showing that while the disease had been checked and

the deaths from it were decreasing steadily in England and Scotland, it had been increasing in Ireland, and was carrying off the flower of the young men and women just at the age when they would be most effective for their country's good. The Lord-Lieutenant, in declaring the exhibition open, referred to the importance of improving the homes of the people. He announced, with pleasure and satisfaction, the following message from the King:—"I am commanded by the King to express his good wishes for the success of the Tuberculosis Exhibition, the first of the kind ever held in Great Britain and Ireland, on the occasion of its being opened by you. His Majesty is greatly interested in the problem of checking the progress of this disease, and he trusts the exhibition may be the means of directing the attention of the public to the terrible ravages caused by this scourge and to the efforts that are now being made to avert its progress." In the course of an address which followed, Mr. Birrell said the exhibition was intended to be instructive and explanatory. He was sure it would excite interest wherever it went throughout the country, and would do an enormous amount of good in the way of instructing the people as to what tuberculosis was. In the past 50 years typhus fever, which was previously such a prevalent scourge, had practically disappeared. It had been cured by scientific zeal and by public attention to the laws regulating health and hygiene. Well, it had been pointed out that this terrible scourge of consumption could, in the same way, be treated. Doctors had found out by their microscopic investigations how it was generated, what it came from, and to some extent how it was spread. They had also hit upon various expedients for curing the disease. They all of them knew, or most of them—he himself had, in fact, known—of several young men who had undoubtedly been cured of this disease by modern expedients. They only wanted to bring home those cases to the people's mind. All the doctors asked the people of Ireland to do was to try their very best, every one of them, to put it down. There were all sorts of methods. He was very glad to see now how much less the practice of spitting had become in trams, trains, and other places. That was only the result of bringing home to people's mind the danger that lay in the habit which at all events was consecrated by long usage.

Twenty or thirty years ago, observes *The Hospital*, the popular conception of a medical student was that of a riotous, gregarious, impecunious and carelessly-garbed youth who did little work, and spent most of his evenings smoking, drinking, and being ejected from music-halls and various Alsatian resorts; who played practical jokes, and did his best to paint the town red, as it was called. No doubt this idea was based to a greater or less extent upon facts; at any rate it was so deeply rooted that most young men, from University "bloods" to linen-draper's assistants, when charged by the police with any kind of alcoholic exuberance, cheerfully described themselves as medical students. And this occupation was held to explain quite naturally—if not actually to condone—those particular forms of misconduct. To some people the passing away of this order has seemed a thing to be regretted, a symptom of degeneration from healthy vitality into premature priggishness. Of the passing itself there is no reasonable doubt. The medical student of to-day is everywhere, and in London especially, unrecognisable as the original of the portrait we have drawn, or of those left us by the satirists of the mid-Victorian period.

The Medical Schools of London opened, as usual, on October 1st for the winter session. No important pro-

nouncement was given in the introductory addresses, which were, on the whole, very much like their predecessors. It is becoming every year more obvious that the old-fashioned orations, brimful of copybook platitudes on training and conduct, are no longer acceptable; indeed introductory discourses are coming to be regarded in many of the schools as supererogatory. Among the addresses delivered this year, the following are the more important:—*St. Mary's Hospital*.—Dr. Osler, Regius Professor of Medicine in the University of Oxford, in addressing the students, described their course of training as a race in which they must make the best use of their resources. They had no power of choice in the selection of their parents, and therefore could not ensure that their mechanism was perfect, but they could teach themselves to make the best use of what they had. In training they had to study science, art, and the man, by which latter he meant the patient. It was rather a hard matter to get the right kind of science into a student. If they could only catch him early, after the absorption of a certain amount of Latin and Greek, he could be trained better and more quickly. The medical man must get a true perspective of life. An investigating spirit was the life of the physician, and he could not realise a better way of stultifying it than by the present system of examinations. Devotion to science and the saturation of its spirit would keep them well in the van of life. One hopeful sign of the times was that it was not by lectures that medical science could be taught. They wanted a school of medical pedagogy, in which able young men might be trained to teach others. In our hospitals at the present day nurses were allowed to do things which students ought to do. There was no question about the nurses doing them much better, but he should like to see a hospital started in which medical students acted as nurses. Not only their success in life, but their own happiness, would depend upon their attitude of mind towards their fellow-subjects. They were in the profession, not as a business, but as a calling, which asked of them devotion, self-sacrifice, and the missionary spirit, and a breadth of outlook rising far above the petty jealousies of life. *University College Hospital*.—Sir Richard Douglas Powell, President of the Royal College of Physicians, and an old student of University College, stated, in the course of his introductory lecture, that they met for the first time that day in the magnificent building which the splendid and enlightened liberality of Sir Donald Currie had erected. There had been an attempt lately to alienate hospitals and medical schools and to regard their interests as diverse. Sir Donald Currie's gift pointed the lesson that a hospital without a school was an emasculated institution—a mere infirmary furnishing no lesson for humanity at large. A hospital with a medical school was a living hospital. With the opening of that school, University College took with King's College a new departure in medical teaching which would be of far-reaching importance. This was the separation of the subjects of the second period of medical education from those of the first. He thought it a matter of great importance that hospitals should regulate the number of their students by the number of their beds. Sir Richard subsequently unveiled the medallion portraits which had been erected in the entrance hall of the school to the late Professor Christopher Heath and the late Professor G. V. Poore. *King's College Hospital*.—Dr. W. H. Allchin, in the course of his remarks, said that so long as medical men were considered to be a necessity—an arguable proposition, he admitted—the ultimate object of medical education would be the supply of

suitably instructed persons for attendance upon the public. It might well be, as indications showed, that as the work of medical officers of health extended and developed, and people became more careful in their mode of living, such a large diminution of disease would come about that the need for the medical man would proportionately decrease, and then would be seen the unique spectacle of a calling by its own training and application destroying the very source on which it depended for its living. *The London Hospital*.—The session was inaugurated by an informal reception given by the staff to old students. The most important recent development in the work of the hospital and that which attracted in a special way many of those who took part in the reception is the establishment of an inoculation department. Up to the present the work of this department has been carried out in the general bacteriological laboratory. An extension of this laboratory has now been effected, so that the inoculation department will be worked independently of the routine bacteriology, under the control of the bacteriologist of the hospital. In the new department provision has been made both for teaching and research. *The Middlesex Hospital*.—Mr. A. G. R. Foulerton, lecturer on public health and bacteriology at the hospital, dealt in his address with the value of preventive medicine as a factor in the welfare of the State. After dealing with the lesson of cholera epidemics in the last century, and of preventable disease in the South African campaign and the Russo-Japanese war, the lecturer devoted a considerable time to the consideration of the unemployed and to the causes which underlay the progressive fall in the birth-rate of the country. He contended that only recently had the State begun to recognise the value of the health of the individual citizen, with the result that, at length, the Legislature had resolved to take a step, long since taken by other nations, which would aim at safeguarding the health of children during their years of compulsory school attendance. By this and other preventive measures it might be hoped that the present tendency to "race-degeneration" would be definitely checked. *St. George's Hospital*.—Dr. Ewart chose as the subject of his oration "Res Medica, Res Publica: the Profession of Medicine, its Future Work and Wage." He urged the necessity of increased recognition by the State and declared that to charge the profession with the support of research was neither commonsense nor common justice. It was inevitable that the profession should become more and more the servant of the State. Henceforth their energies must be devoted more to the care and culture of health than to the treatment of disease. The registration of each individual health with a view to prevention was not a Utopian idea, but a measure suggested by common sense. They would not stamp out tuberculosis till watch was kept over each life. The highest skill was essential for this class of work, and would call for adequate remuneration from the State. Their own practical policy was to be prepared for anything by unlimited adaptability to the coming changes which would exceed the record of the past. *Charing Cross Hospital*.—At the opening of this school the inaugural proceedings took the form of a prize distribution. The Earl of Kilmorey, Chairman of the Board of Governors, presided, and after presenting the prizes and medals to successful students, delivered a short address. He referred to the fact that three brothers had carried off nine prizes between them, and mentioned that the headmaster of the school at which these young men were educated had told him that there were five brothers of the same family destined

for the medical profession. Five sons in the medical profession constituted, he thought, a record for one family. The days of Bob Sawyer and his friends in gaudy vests and loudest of check trousers, whose souls hardly ever soared above stout, and whose manners were unspeakable, were gone for ever, together with the Sairey Gamps and Betay Prigs, and their records were relegated to the shelves of ancient history. In conclusion he urged the students to let their lives and careers be such that all London should say with truth, "You can't beat a Charing Cross student." *St. Thomas's Hospital*.—No formal ceremony took place in connection with this school; but the old students and present staff dined together at the Hotel Cecil under the chairmanship of Dr. Theodore Dyke Acland. The dinner was followed by a conversazione, which was largely attended and much enjoyed. *St. Bartholomew's Hospital*.—No introductory address was given, and the session was opened without formality; but in the evening close upon 200 students and others interested in "Barts" dined together in the fine old hall of the hospital, under the presidency of Mr. Harrison Crippes, the senior surgeon. In responding to the toast of the "Hospital and Medical School," proposed by the chairman, Lord Ludlow, the honorary treasurer, spoke of the additions to the hospital buildings, the latest of which was the new out-patients' block. Referring to the fact that the Prince of Wales was president of the hospital, Lord Ludlow said he thought it would interest them to know that hardly a week passed when His Royal Highness was in town that he did not have to go to Marlborough House and sit for an hour or more while the Prince of Wales asked him all kinds of questions about the hospital. *Guy's Hospital*.—As has been the custom for many years at this school, the winter session was inaugurated by a dinner, which took place in the dining hall of the Students' Union, and was presided over by Mr. Cosmo Bonsor, the treasurer of the hospital. Immediately after dinner an adjournment was made to the anatomical theatre, where the annual meeting of the Physical Society was held. The chair was occupied by the president, Sir Samuel Wilks, and an address was delivered by Dr. George Gibson, of Edinburgh, on "Past and Present." *The Royal Free Hospital for Women*.—In common with the other schools, the London School of Medicine for Women opened its winter session on October 1st at the Royal Free Hospital. Miss Sarah Gray, F.R.C.S.I., surgeon to the Nottingham Hospital for Women, gave the inaugural address, in the course of which she expressed the desire that a more definite standard of medical etiquette could be laid down for lady doctors in regard to matters of dress, etc. Doctors, she said, should know when and whom to frighten. Sometimes it was all-important to alarm the friends of a patient, sometimes it was almost criminal to do so. Doctors were expected to distinguish with certainty between real and "imaginary" invalids. The critics did not imagine that that led them to the most difficult territory in medicine. But for that reason—because it was so difficult—there was a great quest, and a great reward for those who would survey the country for them and tell them how to bring it into fruitful cultivation. *The Royal Veterinary College*.—Professor Lander, speaking at the opening of the Veterinary College, said that he thought the fear that the motor car might seriously injure the work of veterinary surgeons was overstated. Though the motor car as a pleasure vehicle had thoroughly established itself, the commercial motor car had not been sufficiently developed for practical purposes, and it was admitted that its development

was a matter of money. Apart, however, from the horse, they could look in other directions—such as the farm—for new fields to open to them. The revival of agriculture as a main national asset was always in the air, and much was being heard of small holdings and other means for developing agriculture. The removal of anomalies in our present system of food inspection could not but result in the opening of a new field for veterinary work. The prospects of the veterinary student were, from a public, scientific, and pecuniary point of view, in the future. Their college was in a fair way to becoming recognised as an integral part of the University of London. *The School of Pharmacy*.—The inaugural address of the sixty-sixth session of this school was delivered by Professor Raphael Mendola, F.R.S., at the Pharmaceutical Society's institution in Bloomsbury Square. Professor Mendola said there could be no doubt that for many years past a change had for various reasons been coming over the profession of pharmacy. The modern pharmacist, through the introduction of new modes of treatment, the invention of patent medicines, and the manufacture of "tabloid" preparations, and through various other forms of competition—some quite legitimate and others quite illegitimate—had been compelled to become less of a dispenser and more of a tradesman than used formerly to be the case. The pharmacist of the future must be better equipped for the struggle for life than his predecessors, and from their point of view that meant that his training must be both deeper and broader in all those sciences which bore upon his profession. Prior to the address, the President of the Society presented the Hanbury Gold Medal, which had been awarded to Mr. David Hooper, M.P.S., F.C.A., Curator of the Economic and Art Sections of the Indian Museum, Calcutta. Mr. Hooper is an old student of the school, and the author of numerous papers on vegetable materia medica. Being unable to leave his post in Calcutta, the Secretary of State for India had deputed Surgeon General Branfoot to attend and receive the medal on Mr. Hooper's behalf. The medal is awarded every two years for high excellence in the prosecution of original research in the chemistry and natural history of drugs, and carries with it the sum of £50.

THE CURE OF WARTS.

(To the Editor of the Australasian Medical Gazette.)

Sir,—About two years ago a young maiden of 15 confided to me that her happy adolescence was being marred by irremediable warts on her fingers. They certainly looked ugly, their natural deformity being considerably aggravated by recommended "remedies." The picture reminded me of my youth, when, 30 years ago—tell it not in Gath—a boy friend was similarly afflicted, until he had occasion to handle quicklime for a few days; soon after his joy was great because his warts had disappeared.

The girl friend was told to rub her hands with quicklime twice daily, and to wash her hands about an hour after the rubbing. In a fortnight no trace of the warts remained. I have since found this simple treatment invariably efficacious. Should you think this note of sufficient interest to publish it, do so. To me this incident possesses the additional interest of a resurrected mental picture after 30 years of oblivion, and the pleasant recollection of my new and old friends' charming and harmless vanity as they viewed their smooth and wartless digits after this painless, and in the first instance purposeless medicament—I am, etc., Sydney, December 9th, 1907. F.R.C.S.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

(To the Editor of the *Australasian Medical Gazette*.)

Sir,—I beg leave to bring under your notice the conduct of the Queensland Government in dealing with diseases of children's eyes in Western Queensland. First, the Government sent out eye lotion and ointment to the schoolmasters of some of the towns for distribution, with, I believe, more or less injurious effects, but none were distributed here. Then they sent a medical practitioner, who, I understand, is in general practice in Brisbane, to visit some of the western towns, who by this mission was practically advertised as an expert on diseases of the eye, and who had the permission of the Government to engage in private practice during his tour. This gentleman visited the western towns that were not too hard of access and examined all the school children, told those that he considered had sore eyes, and some also with refractive errors, to return to him with their mothers. On their return he told the mothers that their children required treatment and that if they paid him he would treat them. He gave some of these medicine, and told them when they wanted it repeated to send a postal note to a firm in Brisbane with his prescription. He also saw adults to whom he told the same thing, and even sent for some whom he had heard had sore eyes or some abnormal condition of the eyes to come and see him, some of whom were already under treatment, and offered to treat them privately. Such casual treatment, with no opportunity for further observation of results, is, in my opinion, bad, and is about on a par with purchasing an eye lotion at a local store. Had the Government required a special report they could have, I believe, got one at very much less expense, and at the same time much more efficiently, from the local medical practitioner.—I am, etc.,

Aramac, Queensland,
Nov. 18th, 1907.

ALEX. S. PATTON.

THE BATTLE OF THE CLUBS.

Victoria.

WE are glad to note that the line of policy with regard to club practice adopted by the New South Wales Branch of the British Medical Association finds favour with some of the practitioners in Victoria, and that one has not been afraid to speak out on the subject. According to a report in the *Melbourne Age*, at a meeting of the Coleraine Debating Club Dr. Teague read a paper on the "Abuse of Friendly Societies." He said it was the tendency of the modern friendly society to extend its benefit membership to all classes of the community, instead of confining its benefits of sick pay, funeral allowance, and medical attendance to the necessitous and comparatively poor members. The unprincipled commercialism of the societies could not be too strongly condemned. They struggled for cheap rates and took advantage of the keen competition of the medical profession to obtain services below their market value. Incompetent and unprincipled doctors, to get a living, yielded to the demand for low rates. It also encouraged medical men to gain popularity by passing ineligible candidates into lodges and certifying to alleged sickness. Dr. Teague was of opinion that the practice should be discontinued of admitting well-to-do people to the benefits of the lodges; and that the benefit membership should be restricted to people with incomes of less than £200 per year. And with a view to increasing the personal responsibility and moral obligations of the medical profession as individuals, he suggested that societies,

instead of lumping their payments as at present, should pay only for work actually performed. This would weed out undesirables from the profession, and would lead to better medical work. In addition to his ordinary lodge fees a member should be liable to pay 2s 6d per visit to the doctor, up to a maximum of one-twentieth of his earnings, and after that the lodge should take up the running.

Medico-Legal and Medico-Ethical.

Faith Healing.—According to a report in the *Sydney Morning Herald*, the acting city coroner held an inquest recently into the circumstances connected with the death of a child aged 2 years and 8 months, as the result of being scalded through falling into a tub of boiling water at his parents' residence, Marrickville. The child's father gave evidence that cloth soaked in oil was applied to the scalded parts. The treatment was repeated at intervals during the night, but early next morning the child died. He was a believer in healing by faith, and had prayed during the night that the child's life should be spared. He said that for over six years there had been no drugs in his house, and during that time they had had numerous cases of serious illness, none of which had proved fatal. For these reasons he did not call a doctor in. In recording a verdict of accidental death, the coroner advised the father to call in a doctor in future when he had any case of illness in his family. If it had not been that Dr. Palmer could not say with conviction that death was accelerated by the absence of medical aid there would probably have been other proceedings. His Worship then drew attention to section 9 of the Children's Protection Act, which states that any person who wilfully, and without reasonable excuse, neglects to provide adequate and proper food, nursing, clothing, and medical aid or lodging for any child in his care or custody, or wilfully assaults, ill-treats, or exposes, or causes or procures any child to be neglected, shall on conviction before a Court of Petty Sessions, be liable to imprisonment for a period of not exceeding 12 months, or a fine not exceeding £50. His Worship thought that if those provisions were better known it might prevent similar cases occurring.

A Hospital Trouble Settled.—The *Adelaide Register* reports that a special meeting of the Port Pirie Hospital Board was held for the purpose of considering overtures made for the reinstatement of Drs. Carr, Leitch and Wilkinson to the honorary staff. In March last applications were called for a successor to Dr. Stewart, who had been medical officer at the hospital from its inception, but resigned to take a trip to England. The three doctors before mentioned and Dr. Harris, who had been acting as Dr. Stewart's *locum tenens*, applied, and the latter was recommended. Drs. Carr, Leitch and Wilkinson, who had prior to this been appointed to the honorary staff, when they heard of the recommendation tendered their resignations and gave as a reason the action of the board in recommending the appointment of a junior practitioner to the position of superintendent. At a subsequent meeting the resignations were considered, as also was a memorial from about 100 residents, asking that in the interests of sick and suffering humanity throughout the district the board would reconsider its recommendation of the appointment of Dr. Harris, and adopt a proposal which the honorary staff had made for co-operative services by them, their suggestion being that one of the four should be head of the institution for each year, the

position to pass in rotation by seniority of residence here each year; the superintendent *ex officio* for the year to be the sole head and answerable to the board for his year in office. The board did not withdraw the recommendation, and the hospital has since got along without any honorary staff. At the meeting the position was fully discussed between the board and the doctors. Subsequently the doctors had a private meeting, at which the medical superintendent was present by invitation, and the outcome of this was that they applied individually to be taken back under the old conditions. At a special meeting of the committee after consideration of the applications the three gentlemen were reappointed.

Medical Matters in Parliament.

Patent Medicines.—An Amending Commerce Act to enable the Minister of Customs to deal more comprehensively in the future with the trade descriptions attached to patent medicines and infants' foods, has been introduced into the Federal Parliament. The measure does not compel all patent medicines and foods to bear a trade description which reveals their contents; it only compels such a revelation of trade secrets of manufacture when it is "necessary for the protection of the health or welfare of the public." The principal clause of the bill is the following:—"16.—1. In respect of any goods being medicines or medicinal preparations for internal or external use, or articles intended for food for infants or invalids, if the Governor-General is satisfied—(a) That any trade description or part of a trade description required by the regulations under section 7 or 11 of this Act would involve the disclosure of trade secrets of manufacture or preparation; and (b) that such disclosure is not necessary for the protection of the health or welfare of the public, he may by order allow the trade description with respect to those goods to be modified in such manner as he directs. 2. With respect to goods other than those mentioned in the preceding sub-section, the regulations under sections 7 and 11 of this Act shall not prescribe a trade description which discloses trade secrets of manufacture or preparation, unless in the opinion of the Governor-General the disclosure is necessary for the protection of the health or welfare of the public. 3. In respect of any goods being medicines or medicinal preparations the regulations may prescribe a trade description stating the ailments and diseases which they are intended to alleviate or cure." This clause takes the place of the following section in the original Act:—"The regulations under sections 7 and 11 of this Act shall not prescribe a trade description which discloses trade secrets of manufacture or preparation, unless in the opinion of the Governor-General the disclosure is necessary for the protection of the health or welfare of the public."

Pure Food.—A bill has been introduced by the Premier of New South Wales "to secure the wholesomeness and purity of food and drugs and fixing standards for the same; for preventing the sale and other disposition, or the use of articles dangerous or injurious to health, and for the prevention of deception and fraud." The bill is an adjunct to the Public Health Act of 1902, and is to be construed with that Act. It provides for the creation of an advisory committee composed of the President of the Public Health Board, the Professor of Chemistry in the University of Sydney, the Professor of Pharmacology (if any), or the Lecturer in *Materia Medica* in the University; the medical officer of health, metropolitan combined sanitary dis-

tricts; the senior analyst in the Department of Public Health, a representative of the Pharmaceutical Society, and three persons conversant with trade requirements. Section 9 forbids the selling of adulterated articles of food, and the sections following are intended to prevent the sale of food mixed with any ingredient or material or coloured with anything which would render it dangerous or injurious to health. This clause forbids any admixtures or colouring matter with drugs which would affect injuriously the quality or potency of the drug; and there are provisions preventing admixtures with food or drugs which are intended to increase its weight, bulk, or measure, or to conceal its inferior quality. The difficulties in the Health Act with regard to sales of food or drugs not of the nature, substance, or quality demanded by the purchaser have been dealt with in one clause, which removes certain technical difficulties of proof. Where mixtures of food or drugs are sold the ingredients must be pure, sound, and undeteriorated, and the seller must deliver with the package a statement or label stating that it is a mixture, the names of the ingredients, and (in certain cases) the proportions in which they are present in the mixture. This is intended to deal with patent medicines and foods. Special clauses apply to medicinal drugs and appliances, and the board has powers of examining such things when put forward by advertisements as curative. One result of the examination, with comments of the board, may be published in the *Gazette* or any other newspaper, and the latter are protected from actions for publishing such matter. The use of such proprietary medicines or appliances may be forbidden by the board, and advertisements may not be published about prohibited matter. Milk from infected cows must not be sold, and the onus is placed on the owner of a herd in which an infected beast is found of proving that milk from that beast has not been sold for human food. Part of the definition of adulteration is copied from the United States Act of last year. It says: "For the purposes of this Act an article of food is adulterated or falsely described when it consists wholly or in part of a filthy, decomposed, or putrid animal or vegetable substance, or any portion of an animal unfit for food, whether manufactured or not, or when it is the product of a diseased animal or of one which has died otherwise than by slaughter." The powers given to officers under the bill are sufficiently drastic to meet the requirements of the case, and the difficulties which occur in taking samples are got over. The local authorities must do their duty with regard to taking food samples and testing them. The objection commonly made by manufacturers and agents for proprietary and advertised foods, drugs, etc., that no standard has been fixed by the law, will be got over by section 54, which provides that standards of strength, purity or quality of any food or drug may be prescribed by regulation, on the recommendation of the advisory committee. But further than providing standards as above, regulations may be framed to prohibit the manufacture, storing, preservation, packing, or delivery of any article of food for sale, etc.

Hospital Accommodation, N.S.W.—In the Legislative Assembly last month Mr. Estell asked the Chief Secretary to give consideration to the action of an official at the Sydney Hospital in refusing to admit a case on an order from the Government medical officer. On the previous day he had occasion to apply to the Sydney Hospital for the admission of a young woman who had been brought from the country. He obtained an order from the Government medical officer, and

Rat Destruction.—At the present time New South Wales pays approximately £20 per week in "capitation fees" for the destruction of rats and mice, as well as paying for the support of an efficient rat-catching staff. A very large number of rats and mice have been microscopically examined at the Board of Health's laboratory, but none found plague-infected. It is about seven weeks since the last plague-stricken rodent was discovered.

Burials in Catchment Area.—The Water and Sewerage Board in its annual report says:—"Burials still occasionally take place in the few cemeteries situated upon the catchment area. As pointed out in previous reports, under the present state of the law, the board is powerless to prevent such acts, which cannot but be regarded as highly inimical and a menace to the health of the metropolis. It is to be hoped that the long-deferred amending bill, which provides a remedy for this and other disabilities, will soon become law." With reference to the outbreak of typhoid at Cataract, the following appears in the board's report:—"Notwithstanding the extreme precautions taken, eight cases of typhoid fever occurred on the main Cataract camp. The patients were removed at once to the Camden Hospital, and no water was taken from the Cataract into the metropolitan supply."

Victoria.

The Pure Foods Act.—Under this new statute the councils are compelled to take a much larger number of samples than was required of them by the old Act. One thousand and seventy-seven samples have been taken during the first nine months of the present year, as against 536 during the whole of 1906. While the number of articles analysed was considerably larger, the proportion of adulteration showed a marked decline, indicating that apart from its direct influence the Act has had a beneficial effect in warning retailers of food that they must sell pure and wholesome goods. In addition to the samples taken by the municipal councils this year the Board of Health has had a large number of analyses made on its own account; previously this work was done entirely by municipal bodies. The proportion of adulterated samples in the board's operations is even less than in the other cases, showing again the prohibitive effect of the new legislation. With regard to prosecutions, out of the 165 samples found to be adulterated 141 prosecutions arose—equal to 85 per cent. In the case of the board's action 51 prosecutions were directed in the 56 cases of adulteration reported, and in each of the 28 samples of adulterated milk prosecutions followed.

Milk and Dairy Supervision.—About one-sixth of the area of the whole State has been brought under the operation of the Milk and Dairy Supervision Act, which came into force about 16 months ago. This includes the milk areas of Melbourne, Ballarat, Bendigo, and Geelong, and 83 boroughs and shires. In it there are 83,000 acres devoted to dairy farming, of which 120,000 acres are under cultivation; 70,000 cows have been registered, or an average of 1 cow for 12 acres. On a number of farms under observation herds of from 10 to 60 cows are being kept on an area of 2½ acres for each cow. In some districts the farmers are sending for the supervisors to such an extent that the time of the latter is almost completely occupied in attending to these calls. Officers of the Agricultural Department believe that the improvements thus being brought about in the management of the herds, by culling and

proper feeding, will inaugurate a new area in Victorian dairy farming.

Infantile Death Rate.—The vital statistics of Victoria for the third quarter of 1907 show a continuance of the improvement in the infantile death rate exhibited in the figures of the two preceding quarters. The number of deaths of infants in the last quarter was 163 fewer than in the corresponding period of 1906, and for the nine months ended September 614. The rate (7·1 deaths per 100 births) is the lowest ever recorded in Victoria for a like period.

Queensland.

Improving City Drainage.—At a meeting of the Brisbane City Council held last month Alderman T. Wilson notified that at next meeting he will move:—"In view of the urgency of the drainage works at Sydney-street, Newstead, Stratton, Sneyd-street, Abbotsford-road, Beeston and Kingsholme streets, Rosetta Swamp, and near the Normanby, and the unanimity of opinion that these works should have constituted a separate and distinct proposal at the recent poll of property-owners, this council considers it advisable in the interests of the public health that such a proposal be made, and that necessary steps be taken to give effect to the opinion by the notification of the council's intention to apply to the Governor-in-Council for permission to borrow on debentures the sum of £18,100, the estimated cost of carrying out such works." Alderman Wilson was of opinion that if the ratepayers begrudged the council the money to carry out these sanitary precautions they might be forced into unlimited liability by the Commissioner for Public Health. They had already experienced that official's power, and he contended it would be a great deal better for the council to carry out the work and control the expenditure than to have its hands forced by Dr. Ham.

South Australia.

Health of Adelaide.—The medical officer of health reported that during the fortnight ended November 9th 4 cases of typhoid fever, 2 of diphtheria, 62 of measles, 1 of erysipelas, 1 of cerebro-spinal meningitis, and 8 of pulmonary tuberculosis were notified. Of the 4 cases of typhoid fever, 2 were imported from the suburbs for hospital treatment. The remaining two cases were removed to the hospital for isolation and treatment, and in one instance the diagnosis had since been withdrawn. The two cases of diphtheria were imported from the suburbs for hospital treatment. The 62 cases of measles were isolated at home. The case of erysipelas was imported from the suburbs for hospital treatment. The case of cerebro-spinal meningitis was imported from the suburbs for hospital treatment. Of the eight cases of pulmonary tuberculosis three were imported for hospital treatment. Of the remaining five cases four were removed to hospital, and one was at home under the city trained nurse's supervision. The city trained nurse had made 158 visits to 104 cases during the fortnight, and finally disinfected 12 houses. Of the 104 cases under her care, two were suffering from typhoid fever, 62 from measles, three from scarlet fever, two from erysipelas, and 35 from pulmonary tuberculosis.

Tasmania.

Board of Health.—In his report of October the city health officer (Dr. G. Spratt) reported that during that period there were 59 deaths in the registration district of Hobart, but four of these were of persons

not usually resident in the district. Of the above in the city proper there were 33 deaths, viz., 17 males and 16 females, giving a death rate of 16.01 per thousand per annum. The principal causes of death were—influenza, 2; premature birth, 3; meningitis, 2; convulsions, 2; heart disease, 9; apoplexy, 2; old age, 2; and the remainder were of a general character. Ages at death—10 were under 1 year of age, 1 between 1 and 5 years of age, 13 between 5 and 65 years, and 9 were over 65 years of age. The total number of births registered in the district was 98, viz., 59 males and 39 females. In the city proper there were 71, viz., 43 males and 28 females.

Health of Tasmania.

ABSTRACT OF ANNUAL REPORT FOR 1906-1907 OF THE CHIEF HEALTH OFFICER, DR. J. S. C. ELKINGTON, D.P.H.

Quarantinable Disease.—No case of dangerous infectious disease has occurred during the year. Plague has continued to exist in Sydney, and in Brisbane, within easy striking distance of our shores. The recent occurrence of two fatal cases of this disease in New Zealand, and the introduction into Melbourne of one case, also fatal, go to show that Tasmania is by no means immune against similar risks. The arrival in Hobart of a steamer from which a case of smallpox had been landed at Capetown (having developed soon after leaving England), necessitated enquiry and the application of quarantine measures until the details were cleared up. Vaccination had been freely performed amongst those on board after leaving Capetown, and this wise precaution greatly simplified the operations required. The leper referred to as having been discovered at Launceston last year was finally repatriated. A great deal of trouble was experienced in getting him shipped from Tasmania, but this was finally overcome at relatively small cost.

The establishment of a skilled, though not necessarily extensive, central Federal administration, working in reasonable co-operation with the State Health authorities, will enable many matters of vital importance in safeguarding this and other States to be dealt with on a far broader and more effective basis than is at present possible. The continued existence of six sets of quarantine laws under six different administrations (upon none of whom rests any legal responsibility whatsoever for protecting or warning its neighbour), without definite uniformity of practice on the part of those who operate them, is obviously undesirable when a uniform arrangement is feasible. Relief from quarantine administration is also desirable as enabling more time and attention to be devoted by the department to observations on and operations against those preventable diseases and conditions which are already with us. The time now required for considering and dealing with exotic disease dangers can, from the State standpoint, be more profitably, if less sensationally, employed in attacking such questions as the endemicity of typhoid fever, the causes producing high infant mortality in our cities, and the adulteration of the people's food. "The Vaccination Act" continues, for reasons beyond my control, to be a dead letter. A large unvaccinated population is again accumulating in the State. The results of inaction will be probably manifested in the next smallpox outbreak in the manner which is already familiar from the experiences of 1887 and 1903. A supply of 500 tubes of vaccine is now constantly main-

tained in cold storage, in order that emergencies may be met, to some extent at least.

Rat-destruction, Hobart.—Operations for the destruction of rats about the Hobart wharves, as a preventive against plague, were initiated in March, 1907, and have since been carried on under departmental direction without intermission. An enormous reduction in the rat population has been effected. Between March 1st and June 30th, 1907, over 121,000 baits were laid and taken in the vicinity of the wharves. A large fan-fumigator has proved of great service in sulphuring burrows and warrens, and in locating rat-runs communicating with drains and sewers. Representations to the Marine Board have led to the demolition of certain ancient stone buildings which had afforded extensive harbourage for rats. Before demolition began the buildings were thoroughly treated with poison and the fumigator, with the result that many bucketfuls of dead rats were subsequently removed from the rubble walls and under the floors. Arrangements were made with the City Council and Marine Board for a better system of removal of refuse from ships alongside, and the latter body has also taken action to secure the prompt removal from the wharves of timber and goods likely to afford rat-harbourage. Improved berthing regulations for vessels from infected places were proclaimed, and have been enforced by the wharf police and the officers of the Marine Board. A number of rat carcasses have been examined in the laboratory for traces of plague, but without result. The operations have been financed by joint contribution from the State, the Marine Board, and the City Council. The Council has also carried out operations in the City (principally on the capitulation system of payment), over which the department exercised no supervision. The total cost to each contributing body up to June 30th, 1907, was £64 19s 11d, of which the Council's operations covered £29 17s 2d. It is to be regretted that a similar undertaking, though on a necessarily smaller scale, has not been feasible for Launceston and Devonport, as the two ports of entry next in importance to Hobart. Its continuance in Hobart is to be strongly recommended as an essential measure against the entry of plague.

Notifiable Infectious Diseases.—Typhoid Fever.—One hundred and eighty-four cases, with 29 deaths, were notified during the first six months of 1907. For 1906, 394 cases were notified, with 38 deaths; for 1905, 192 cases, with 23 deaths; and for 1904, 250 cases, with 22 deaths. Since the inception of compulsory paid notification (January 6th, 1904) there have been notified (after excluding unsubstantiated cases) 1018 cases of typhoid fever. A low average of the cost per case may be fixed at £12. This represents an expenditure on account of this one preventable disease on an average of nearly £3500 per annum. The proportion of hospital expenditure from State subsidies at the general hospitals, Hobart and Launceston, on behalf of typhoid fever, after deducting average fees paid by patients, amounted to some £2736 during two and a half years of this period (372 cases treated). Between January 6th, 1904, and June 30th, 1907, 112 deaths were reported from typhoid, yielding a case mortality of 11 per cent. Of 146 deaths from typhoid fever at all ages, between 1902 and 1906, 113 (over 77 per cent.) were between 15 and 45 years of age. Special enquiry by the officers of health into each case of typhoid fever occurring in the city districts has continued to be made.

Diphtheria.—Ninety-four cases were notified during the first six months of 1907, with 5 deaths. Sixty-nine

of these cases occurred in Hobart and its vicinity during March, April, May, and June. In 1906, 59 cases were notified; in 1905, 186; and in 1904, 27; the deaths being 4, 10, and 4 respectively.

Puerperal Fever.—Three cases in all were notified for the six months of 1907, with 1 death; in 1906 16 cases and 2 deaths occurred; in 1905, 17 cases and 8 deaths; in 1904, 12 cases and 5 deaths. Special enquiries are carried out by the department in respect of each case notified, and where necessary the police department is requested to prosecute in the case of unregistered midwives.

Scarlet Fever.—Four cases only were notified for the first six months of 1907, with no deaths. The disease occurred sporadically, and in one instance was apparently traceable to clothing which had been infected by a previous case some years before. Twenty-three cases were notified in 1906, with no deaths; 105 in 1905, with 1 death; and 197 in 1904, with 4 deaths.

Non-notifiable Diseases.—Tuberculosis.—During the first six months of 1907, 70 deaths were recorded from tubercular diseases, of which 40 were due to consumption. During 1906 162 deaths occurred, of which 119 were due to consumption. Ninety-one of the latter were deaths of persons between 15 and 45 years of age. During the 5½ years ended June 30th, 1907, a total of 910 persons are returned as having died from tubercular diseases. Of these, 603 were between 15 and 45 years of age, and 486, or about 80 per cent., of these latter died of consumption. Compulsory notification is under consideration as an essential first step in systematically combating tuberculosis in all its forms. It has been deemed advisable for administrative reasons to obtain the opinion of the Tasmanian medical profession as to the advisability of recommending the proclamation as an infectious disease of "pulmonary tuberculosis with cavity formation in one or both lungs." Of 75 medical men who have replied to a circular of questions forwarded from the department, 71 are in favour of compulsory notification. Sixty-four are also of opinion that the department should request local authorities to refrain from active interference after notification in cases where the notifying medical practitioner certifies on the form that effective means are being adopted to prevent infection of others. Sixty-four consider that disinfection should be carried out by the local authority after every death from pulmonary tuberculosis in a dwelling. This limitation of the class of cases to be notified to those which may be fairly regarded as imminently dangerous to others unless due precaution is observed by the sufferer and those in attendance on him, is essential if any useful immediate action is to be taken. To proclaim tuberculosis generally as a notifiable disease would merely invite failure under Tasmanian conditions. Even with the restriction alluded to, however, the administrative problem involved is a wide one. The provision of special accommodation for indigent advanced consumptives will certainly become necessary, and some complications may be expected from "scare" on the part of certain employers and others.

Cancer.—Fifty-two deaths from this cause occurred during the first six months of 1907. The great majority occurred in relatively old persons, only 7 taking place between 15 and 45 years of age. The deaths from cancer in 1906 numbered 94, or 68 less than those from tubercular diseases. Thirty specimens of cancerous growths have been forwarded to the Imperial Cancer Research Fund laboratories (London) during the year.

Food-stuffs.—Practically any kind of sophisticated food may be unloaded on the public of Tasmania

either in the cities or elsewhere. The whole of the analytical work performed under the Act for the Hobart local authority between July 1st, 1906, and June 30th, 1907, consisted of five examinations of milk samples. One was deficient in fat to the extent of 26 per cent.; the remainder contained from 14 to 30 per cent. of added water. Two of the five delinquents were proceeded against, and fined £2 each, with costs. The Launceston local authority during the same period contributed one specimen of brawn in connection with a food poisoning case. *These six analyses represent the entire protection against food adulteration afforded by local authorities who are supposed to safeguard the purity of the food of some 43,000 persons.* The local authorities whose districts adjoin the cities have taken no measures whatever to fulfil their responsibilities in this respect. The procedure fixed by the Act does not permit the department to take direct action against food-adulterators, and although local authorities may be required to appoint approved analysts, no provision exists for obliging them to obtain analyses. The failure of local authorities to recognise or grapple with the matter is no new difficulty in Australian sanitary administration, and has been the subject of special legislation in other States. *For any practical solution to be arrived at, it will be necessary to remove the whole question of systematic analytical supervision of foodstuffs from the hands of local authorities to provide one central food-analytical laboratory for the State, and to arrange for systematic securing and transmission of samples at the public cost.* This proposal may at first sight appear somewhat formidable, but in practice it should not involve the collection and examination of more than 1200 samples a year, including alcoholic liquors. The necessity for statutory provision for securing adequate inspection of meat intended for human consumption, and for better supervision of meat-production, is again brought under attention. Certain dangers arising from infected milk and defectively supervised dairies have already been illustrated in connection with the outbreak of milk-borne typhoid fever at Zeehan.

Water Supplies.—The majority of public water supplies in Tasmania are unprotected against dangerous pollution, and a serious outbreak of dangerous disease is liable at any time to occur from this cause. Numerous instances of outbreaks of water-borne typhoid fever—the disease from which we have most to fear in this connection—are on record. Sand filtration or other reasonably effective means of purification before distribution affords the only safeguard against a possible repetition of this catastrophe in any one of a half score of Tasmanian centres drawing their water supply from unprotected sources. The relatively extensive settlement on the sources of the Launceston water supply is of grave import to the interests of the city, and should be carefully investigated, with a view to protective action.

School Hygiene.—An exhaustive medical examination of over 1200 children attending State schools in Hobart was carried out, with the professional assistance of Dr. A. H. Clarke, during the latter part of 1906. The results were presented in a special report. A system of medical inspection of State schools recommended in the report in question received the support of the Director of Education, and was accepted by Ministers. A whole-time lady medical inspector of State schools (Dr. Gertrude Halley, M.B., Ch.B., Melb.) and two part-time visiting medical inspectors (Dr. A. H. Clarke for Hobart, and Dr. G. H. Hogg for Launceston) were appointed under the Education Department. The work commenced in April, 1907, and has already yielded valuable results. The city State schools are visited at

least once weekly, and usually oftener. The classrooms are visited once a fortnight at least, and the children observed in their places. Teachers are instructed in simple methods of observing children for illness and serious defects, of weighing and measuring them, and of testing eyesight and hearing by the card and whisper tests respectively. New scholars and defective or weakly children are systematically examined, and advice is given to teachers concerning those requiring special consideration at school. Parents are advised by the head teacher if any serious or communicable disease or condition is discovered by the medical inspector. A sharp lookout is kept for infectious disease, to secure early exclusion of sufferers and contacts. Treatment is not given, parents being requested to apply to their own medical advisers. A simple recording system renders the observations of permanent value. These records are, of course, regarded as strictly confidential. A large number of State schools in the country have already been visited by Dr. Halley, who has also assisted materially in the initiation of the work in the cities. The lectures on School Hygiene to teachers undergoing instruction at the Training College are now delivered by Dr. Halley. Special attention is paid to the hygiene of everyday school life, the object being to practically illustrate common sanitary defects of schools and simple methods of overcoming them. A series of "talks" to mothers of school children has also been commenced in the city schools. Printed invitations are taken home by the children asking their mothers to meet Dr. Halley at the school after four o'clock. A short informal address is given. The main principles of child health are alluded to, and questions invited. Arrangements are being made for the women teachers from the Training College to attend one or more of these "talks." Similar work is done in Launceston schools, and the principal country schools will be included as opportunity arises. Demonstrations on the feeding and care of infants are being arranged for in the same manner and will be commenced when summer begins. The excellent brochure on the Bertillon system of classification of disease recently issued by the Commonwealth Bureau of Statistics is in process of adoption to the school medical inspection records. It is anticipated that by a simple process of standardisation of the medical inspector's observations, this system will prove of great service by securing greater accuracy in recording and interpreting the results of their work.

Infantile Mortality.—The infantile mortality of Tasmania, and particularly of the cities, is undoubtedly much higher than it should be when the social, climatic and industrial conditions are considered. The infantile mortality rates of the city districts are particularly significant, and do not tend to substantiate the claims sometimes put forward on behalf of our excellent climate as an alleged panacea against all physical evils. The years 1902-1906 include the lowest annual infantile mortality rate experienced during 11 years in Launceston (93), and the second and third lowest (109 and 115) for a like period in Hobart. Reduction of the infant mortality to 75 per 1000 born in the two cities over the five years period would have saved some 437 infant lives, besides greatly improving the subsequent physical soundness of at least 1200 more. Operations for the reduction of infant mortality, and its accompaniment of infant deterioration, form an extremely technical and important problem in public health work. The first step to be taken in initiating such operations consists in the compulsory notification—not necessarily registration—of all births

in the districts to be worked within 48 hours at latest after birth. Still-births of children born during or after the seventh month should also be compulsorily notifiable. Early notification is of the greatest importance in enabling early breast-feeding to be secured where possible amongst working-class mothers, and in preventing many of the worst evils accruing from unskilled midwifery and from insanitary and ignorant methods of child-rearing. More than a third of all infant deaths occur under one month. The notification of still-births (which should, for statistical purposes, be notified as deaths also) would enable certain other preventable factors of child mortality to be dealt with. The Infant Life Protection Bill will, it is considered, provide amply for the protection of illegitimate and privately boarded out infants, by enabling women inspectors to be appointed where necessary, and by providing for reasonably effective regulation.

Offensive Trades.—The regulation of offensive trades generally in Tasmania has been specially inquired into for several months past, and the conclusion is inevitable that local authorities in general are incapable of exercising the degree of technical skill and knowledge necessary for equitable and sanitary regulation of these classes of business. Whilst local authorities should be allowed to retain reasonably effective powers of registration, entry, and inspection, etc., it is considered that the ultimate control should be vested in the Minister, and that provision for systematic State supervision should be made. It is only by means of statutory provision of this nature, enforced by officers free from local influences and possessing technical knowledge, that gross nuisances can be effectively prevented, and reasonable protection against local prejudice or ignorance afforded to certain important industries.

General.—Identificatory observations on the fleas of Tasmanian rats (in connection with plague-conveyance) were commenced in 1904, and have been carried on at intervals ever since. The conclusions of the Indian Plague Commission, published recently, have confirmed views which I have held and put forward since 1903, as to the powers of certain rat-fleas (*Pulex cheopis*, Roths.) in the conveyance of plague. This flea is apparently rare as a rat-parasite in Tasmania, and the few examples met with have come from rats caught in the vicinity of the Sydney shipping. A number of observations have been made on Tasmanian mosquitoes, with a view to ascertaining the presence or absence of Anophelinae, and of the *Stegomyia calopus*. No anopheles has been noted amongst some hundreds of specimens from various parts of the State. Two kinds of parasitic worms are frequently found in the barraouta (*Thyreites atun*), and their presence interferes somewhat with its use as food. Specimens were kindly examined for me by the British Museum authorities, who stated that both were harmless to human beings. One proved to be a filaria, the other the larva of an *Ascaris* (*A. sphyranæ*). The latter is said to interfere with the smoking of the flesh, by causing white watery patches. A number of Widal tests for typhoid fever, and examinations of throat swabs for diphtheria organisms, have been performed in connection with various official inquiries. The typhoid bacillus was isolated from the clot in one Widal specimen out of three tried on special media for its detection. Trials of a simple and accurate macroscopic method of performing the Widal test, as described by Dr. Emery, have also been made, with satisfactory results.

Further measures required for the protection of the Public Health in Tasmania.—1. The appointment to the

Department of a second experienced certificated sanitary inspector. 2. The introduction of legislation for the better and more equitable control and regulation by the State of offensive trades in Tasmania. 3. The introduction of legislation to enable early notification of births to be rendered compulsory by proclamation in any district or area defined in such proclamation. 4. The provision of a sufficient sum to enable operations against excessive infantile mortality to be organised and carried on for a year by the Department in one or both of the city residential districts. 5. The introduction of legislation providing for the systematic inspection and stamping of all meat intended for human consumption. 6. The introduction of pure food legislation, providing, amongst other matters, for a central food analytical laboratory; for systematic securing and analysis by the State of samples of foods, drugs and drinks, and for the establishment of official standards of composition and of analytical methods. 7. The inclusion in future grants for the installation of public water supplies of adequate provision for (a) insuring reasonable purity of the water when distributed, (b) imposing upon the Water Trust, or other body concerned, direct responsibility for preventing gross or dangerous pollution before distribution. 8. Increase of the departmental vote, to allow for more effective enforcement of "The Public Health Act, 1903," and for the more systematic investigation and combating of such endemic diseases as typhoid fever and tuberculosis.

HOSPITAL INTELLIGENCE.

St. Vincent's Hospital, Sydney.—St. Vincent's Hospital, which celebrated its jubilee last month, is by no means the oldest hospital in Sydney. That honour belongs to the Sydney Hospital, which was founded as the Sydney Infirmary by Governor Macquarie on October 23rd, 1811. It was in the time of Archbishop Polding that St. Vincent's had its origin as a charitable institution. Five Sisters of Charity were brought from Dublin. On the last day of the year in 1838 the sisters, after a long and hazardous voyage, landed in Sydney, and went first to Parramatta, and laboured amongst the convict women there, who were amongst the most degraded of humanity. In 1856 the Governor, Sir George Gipps, purchased from Sir Charles Nicholson the property on the eastern side of Woolloomooloo Bay known as "Tarmons" for £10,000. This was the first St. Vincent's Hospital, and the Sisters of Charity were installed in it in 1857. This property still stands in Victoria-street, although considerably altered inside. The fine Himalayan pine planted by Sir Charles Nicholson still flourishes in front of the building. The Sisters of Charity at that time had the duty of visiting the prisoners in the gaols—a work they still perform—and when the Darlinghurst Gaol was established they had to walk through the bush to do so. Between the hospital and St. Mary's Cathedral there was more bush, and a black's camp. Foreseeing that the site would be more suitable for a college than a hospital, as the demands upon each increased, the authorities made arrangements for another hospital a little to the east of the gaol, overlooking the picturesque Barcom Glen. The foundation stone of the building was laid on May 12th, 1868, by Archbishop Polding, and in two years the new St. Vincent's Hospital was open as a free institution. The year 1886 saw the foundation stone laid for an enlargement by Cardinal Moran. Both the indoor and outdoor work of the hospital had increased

since its foundation to a remarkable extent. In the year of foundation (1857) 13 indoor and 81 outdoor patients were attended to, and one operation was performed. In 1867 the number of indoor patients was 170, outdoor 379, and the operations numbered six. Surgery was still little practised. In 1877 indoor patients numbered 237, outdoor 1220, and the operations were 10; but during the decade the number of the latter in one year had risen to 30. The year 1887 showed over 300 per cent. increase—the indoor patients totalling 950, the outdoor 2010, and the operations 75. Consistent progress was maintained, and in 1897 the indoor patients numbered 1536, outdoor 5000, and the operations 870. Last year the totals had reached the figures of 1909 indoor patients, 11,072 outdoor, and 1049 operations. Patients treated during 50 years:—Indoor, 40,990; outdoor, 175,313; total, 216,303. Number of attendances on outdoor patients, 474,106. Number of operations performed, 14,412. On the hospital—land and buildings—the sum of £53,000 has been expended. During the first year of the hospital, James Robertson, M.D., F.R.C.S., Wynyard-square, was the hon. surgeon. Medical men have always deemed it an honour to be associated with the hospital, as the following names of workers up to the present date indicate:—Drs. F. Milford, A. M. Brown, Miles Egan, H. G. A. Wright, G. Bennett, C. Nathan, J. C. Cox, S. Boyd, R. Schuette, C. A. Becke, S. Boyd, Laure, E. S. P. Bedford, H. N. MacLaurin, M. J. Clune, G. Fortescue, A. Shewen, J. W. Cox, L. H. J. Maclean, T. J. Pickburn, H. Holcroft, E. Fairfax Ross, W. D. Williams, W. Odillo Maher, W. Chisholm, R. W. Coppinger, C. H. Maher, K. I. Doherty, A. J. W. Keenan, G. L. O'Neill, A. J. O'Flanagan, J. L. de Lambert, G. L. Mullins, J. F. Nelly, T. K. Knott, Scot Skirving, J. J. Egan, C. W. MacCarthy, J. Quilter, J. P. Kelly, E. R. H. Pollard, C. A. Muller, A. J. W. Keenan, A. A. Cohen, D. Doolan, P. J. Kenna, G. J. Irwin, M. J. Lyden, M. O. Hughes, A. Patterson, H. Sheldon, H. R. Cope, R. H. Jones, R. W. L. Schuette, H. L. Crocker, W. F. Burfitt, D. Kelly, C. E. Marsden, J. H. Cahill, C. V. McInerney, R. M. Lane, J. Coen, L. Jones, H. S. Stacy, H. F. Iliewiez, H. C. E. Donovan, A. C. Cahill, J. Flynn, P. Clifford, and Gateward Davis. Since its foundation the hospital has received but £3000 in grants from the Government, £1000 being for a new operating theatre in 1900.

Hobart Consumptives' Sanatorium.—At the monthly meeting of the above committee, held last month, the matron's monthly report showed five patients in the sanatorium, all recovering, and two expecting to leave cured before Christmas. Miss Maudsley reported that the furniture for the new chalet had been purchased and sent out. An application for admittance on behalf of a young girl from Richmond was approved of. The visiting committee reported having visited and inspected the proposed site for a crematorium and fumigating room, and details of same were left in the hands of the chairman, medical officers, and hon. secretary. Matters in connection with the Huon shelter were left in the hands of the secretary, and the hope expressed that the Huon people would expedite matters.

Hobart General Hospital.—At the ordinary meeting of the Hobart Hospital Board, held last month, the visiting committee reported that during the month advertisements had been inserted in the northern and southern newspapers inviting competitive designs for the Children's Hospital building. The committee de-

sired to draw attention to the urgent necessity for extra sleeping accommodation being provided in the Nurses' Home. The existing number of bedrooms were barely sufficient for ordinary requirements, and when it had been necessary to engage extra nurses sleeping accommodation had to be found for them in the special rooms in the Women's Hospital. When the Children's Hospital was completed it would be necessary to augment the staff by five additional nurses, and it was with the view of preventing any unnecessary delay that this matter was brought under the notice of the board. In the original design for the Nurses' Home there were more rooms arranged for, but to bring the cost of the building within the available money the rooms designed for the night nurses' quarters were struck out. Inquiry had been instituted to ascertain if a copy of the original plan was obtainable. As soon as funds were available the renovation of the Nurses' Home would be proceeded with. This work had been put off from time to time, but could now no longer be delayed. The salary abstracts and accounts for the month of October, amounting in all to £827 1s 6d, had been examined, found correct, and passed for payment. The fees collected during the month amounted to £104 8s 2d, and on November 1st the sum of £451 12s 2d remained on the books for collection. During the month 220 patients were treated in the hospital. Of this number 129 were discharged and 10 died, leaving in the institution on November 1st 51 males and 88 females. Of the 220 in-patients, 91 came from country districts, 57 were paying patients, and 163 were admitted free. The daily average number of occupied beds was 96, as compared with 90 last year and 71 during October, 1906. In the out-patients' department 148 new cases were treated, casualties 22; total attendances, 579.

Launceston Hospital.—At a meeting of the Board of Management of the General Hospital, held last month, the finance committee reported that the receipts for the month were £375 from the Government and £131 6s 8d from fees, etc. The expenditure was greater than the receipts by £138 5s 1d. During October 127 patients were admitted and 122 discharged. There were 9 deaths. Of the patients, 65 were paying and 62 free. It was agreed that Dr. Ramsay, the surgeon-superintendent, should remove from the adjacent premises, called Fairy Mount, and take up his residence on the hospital premises, which would carry with it board and attendance. The finance and visiting committees reported in reference to the inquiries by the Auditor-General as to the use of the X-rays at the hospital, that the surgeon-superintendent (Dr. Ramsay) had treated 29 patients, 23 of whom were introduced by other medical men. The remainder went to the hospital and requested treatment. A new rule was now submitted as to the use of the X-rays apparatus by resident officers or any qualified medical men, and as to fees to be charged, etc. :—“(a) The resident medical staff may receive a fee for undertaking the X-ray examinations and treatment at the request of any outside medical practitioner, 25 per cent. of the fees to go to the funds of the board. (b) Any legally qualified medical practitioner may, with the consent of the superintendent, use the X-ray apparatus for his private patients at such hours as may be appointed, and solely at the hospital. He shall be responsible for all damage occurring during such use, and shall replace, or have satisfactorily repaired, any portion of the apparatus injured; 25 per cent. of all fees received for such use to go to the funds of the board.” The new rule was

ordered to lie on the table till next meeting. The chairman mentioned that £1700 had to be found to pay the balance due on account of the new operating theatre and other improvements. It was proposed that the Government should be asked for a loan of £1000 at 4 per cent. to reduce that amount, and to allow the board to use the surplus of £314 from last year for the same purpose. He also stated that they had now £850 towards the erection of a Children's Cottage Hospital, but the cost would be £1700. A letter was received from Mr. Richard Gee, offering an acre of land at Lagoon Bay, near George Town, for the erection of a Convalescent Home. The offer was gratefully accepted.

Devon Hospital, Tasmania.—At the monthly meeting of governors of the Devon Hospital, held at the Latrobe Hospital last month, the secretary reported the special building fund now stood at credit £281 11s. The chairman stated the anonymous donor of £250 had paid in that amount to the hospital's credit. A very hearty vote of thanks was passed to the donor, and the governors also eulogised the manner in which the public of the North-West Coast had taken the offer up. The secretary reported other accounts to be :—Working account, cr. £26 18s 5d; ordinary building fund, cr. £137 10s 4d. The finance committee were instructed to invest the available funds. The monthly report showed 27 patients in the hospital. To date 224 patients had been treated, as against 218 for the whole of last year.

Newcastle Hospital, N.S.W.—A deputation representing the committee of management of the Newcastle Hospital waited on the Chief Secretary recently to ask for a special grant in aid of the funds of the institution. The deputation told the Minister that the committee was threatened with a deficiency of £1000 for the current year. The shortage was mainly due to a falling off in the donations, and to the limited success of functions arranged in aid of the funds owing to unfavourable weather conditions. It was therefore asked that the Government should provide a special grant of £1000, or render assistance in some other form. The laundry building, which had been completed a year ago, was still without the necessary machinery and utensils, and was therefore useless. Mr. Wood said it was useless for the deputation to put forth a claim for a special grant on the ground that subscriptions had fallen off, because the same circumstances might exist next year, and if he established the precedent of assisting hospitals out of difficulties of that sort it would become a permanent thing, and would practically lead to hospitals being regarded as institutions for which the Government was wholly responsible. At present he could not promise Newcastle a special grant, but he would consider its case when the committee furnished him with a statement showing its income and expenses annually.

Royal Prince Alfred Hospital.—The two new operating theatres in the Queen Victoria Memorial Pavilions of the Royal Prince Alfred Hospital are now practically ready for occupation. They are regarded as the best of the kind in any hospital in the world, as they have been designed and carried out upon plans drawn after careful investigation of the schemes adopted in other great hospitals, and with a desire to make them as up to date and efficient as possible. Each department consists of eight apartments. The patients, who are taken to the theatres by hydraulic lifts, arrive in the outer anæsthetic room. Beyond this is an inner anæsthetic room, which arrangement permits, if necessary, of two patients being placed under an

anæsthetic at the same time. The anæsthetic rooms open on to what may be termed the vestibule of the theatre proper, in which are situated the sinks and basins, there being no plumbing work (except one small basin for the use of the surgeon) in the theatre itself, for each set of pipes affords receptacles for dust and germs. The operating arena is walled off from the rest of the theatre by parti-walls, which are faced and capped with Australian marble, the double sliding doors separating the arena from the vestibule, being also of marble. There is thus no rough surface which could collect dust. In every respect the arrangement of the theatre is different from that of any other in Australia, and more nearly approaches the schemes of the famous Mount Sinai and Presbyterian Hospitals in New York. The pathological department of the hospital recently constructed is also extensive, and is fitted in the most modern style, rendering every facility for carrying out this class of study.

MEDICAL NOTES.

Charitable Bequests and Donations.—The late Mr. Alexander Myers, of Myers and Cantor, formerly of Sydney, has bequeathed £50 each to the Royal Prince Alfred and Sydney Hospitals. A cheque for £80 has been handed to the Orange Hospital, N.S.W., as its proportion of the net funds from the Eight-hour demonstration.

Friendly Societies' Legislation.—At the 13th biennial session of the Federal Council of the Protestant Alliance Friendly Society of Australasia, the president in his address said that in December, 1900, they had 15,381 members, with funds amounting to £132,118; while in December, 1906, they had 21,721 members, with funds aggregating £206,596. The difficulty found by some States in adopting the scale of clearance values emphasised the necessity of a Federal Friendly Societies' Act, which would allow members to transfer from one State to another without the difficulty which existed at present. In their report for two years ended December 31st, 1906, the Federal executive stated that 17 new lodges had been opened, there had been an increase of 222 benefit members, and 325 honorary, and finances had increased by 31,246. Progress made in Victoria during the previous period had been sustained, and marked progress had been made in New South Wales and Queensland. At the luncheon the Postmaster-General responded to the toast of the Federal Parliament. He considered that the question of friendly societies should be in the hands of the Federal Parliament to deal with. Friendly societies should be federated, and this could only be done effectively on a federal basis, under legislation by the Commonwealth Parliament.

Ambulance Work.—At the annual meeting of the Civil Ambulance and Transport Corps of the St. John Ambulance Brigade, Sydney, held last month, the report presented showed that the mileage covered by the ambulance officers in the course of their daily work now exceeded that of the previous year by 1466 miles, the total miles traversed being 13,819½. The cases were conveyed to 25 different institutions, etc., the largest number going to the Sydney and Royal Prince Alfred Hospitals. The total number of cases was 3787, an advance of 564 on the previous year. Street accidents and mishaps at sports gatherings were shown to have also increased. The work done at the various stations was noted, Circular Quay having 240 cases, Balmain

191, and Newtown 256. Mr. and Mrs. Archibald Forsyth had presented the corps with a new ambulance waggon (horse and harness included), £285 5s was netted from the children's ball at the Town Hall, and £130 as the corps' share of the Hospital Saturday Fund. The various divisions were well organised, fairly prosperous, and were doing useful work in training ambulance officers. The balance-sheet showed a surplus on the year's working of £311 4s 5d. The report and balance-sheet were adopted.

First Aid Congress.—The first international first aid and life saving congress will be held at Frankfurt-on-Main in June, 1908. Governments, municipal bodies, and other institutions have been invited to send delegates. The Government of New South Wales do not intend to appoint an official representative, but it is possible that the St. John Ambulance Association may take steps to secure a delegation.

Manila Health Precautions.—There is at present an embargo in the Philippine Islands on Australian butter on account of boric acid or boron contained in it as a preservative. Speaking on the matter in the House of Representatives recently the Prime Minister said that the Government were in communication with the authorities at Manila on the subject. From information he had obtained, apparently every preservative in butter was condemned in the Philippines except salt.

Plague at San Francisco.—A cablegram has been received from the British Consul-General at San Francisco, stating that since May 27th 94 verified cases of plague had occurred, 60 of which had proved fatal. It appeared that the majority of the cases had occurred within the last month. The New South Wales Board of Health has directed that the shipping companies concerned should be notified that for the present all vessels which had been alongside or in dock at San Francisco must on arrival here present fending-off certificates and certificates that the vessel was fumigated when empty, duly attested by the British Consul-General.

The Australian Army Medical Corps Reserve is to be a special volunteer force. The officers are to be drawn from the registered medical practitioners, in addition to those now on the list, which latter number 25 for the whole Commonwealth. They will be graded into consultative and executive staffs, and will form the medical and surgical staffs for the Government civil hospitals, where the sick and wounded might be taken, and be a staff for duty in the field or in garrison. Students of medicine will be drawn upon for other ranks, and also dentists, chemists' assistants, members of recognised ambulance societies, and special trades. Schools of instruction will be opened to members of corps, with a provision that no extra expense is to fall on the Government on account of them.

PERSONAL ITEMS.

Dr. J. R. Leslie, late of Double Bay, Sydney, has removed to Wickham, N.S.W.

On November 16th Dr. T. Auricht, of Hahndorf, S.A., was presented with a silver tea and coffee service on a massive silver tray, accompanied by a written address, by the residents of the district, on the occasion of his marriage. Dr. Auricht expressed thanks on behalf of Mrs. Auricht and himself for the presentation.

Dr. W. Middleton has returned to Mittagong, N.S.W., from a trip to America and Europe.

Dr. Constance Cooper, who volunteered for two years for Furreedpore Mission work, left Adelaide last month for India.

Dr. W. F. Brown has commenced practice in Devon-street, Sydenham, Christchurch, N.Z.

Dr. McIlroy, of Lumsden, N.Z., was recently entertained at a social promoted by the members of the St. John's Ambulance Association, and presented with a handsome case of pipes.

Dr. W. A. Fleming, of Balclutha, N.Z., who has sold his practice to Dr. Burnett, was lately entertained at a public social, and was presented with an illuminated address, a roll-top oak writing-table and chair, and a set of special surgical instruments.

Dr. Lillie has disposed of his practice at Riversdale, N.Z., to Dr. T. N. Watt.

Dr. Dawkins, of Hamley Bridge, S.A., was recently presented with an illuminated address by residents of the town and district.

Dr. L. Dunstone has returned from Edinburgh, and has commenced practice at Lameroo, S.A.

Dr. J. W. Dunbar Hooper, of Collins-street, has returned to Melbourne from a visit to Europe of over eight months' duration. At the request of the Federal Government he attended the International Convention for the Preservation of Child Life, which was held at Brussels.

Dr. Albert Martin has been appointed Consul of Chile at Wellington, N.Z.

The members of the first-aid classes, Gisborne, Victoria, lately gave Dr. Mabel Baillie a complimentary social, and presented her with a laryngoscope and set of mirrors.

Dr. Eileen FitzGerald, who has been appointed resident surgeon to the Victorian Eye and Ear Hospital, was recently the recipient of a handsome testimonial from the medical superintendent and staff of the Queen's Memorial Infectious Diseases Hospital, Fairfield, where she has for the past two years occupied the position of junior medical officer.

Dr. H. Cumpston, who has been in England and the Continent, has obtained the diploma of Public Health, and will return to Melbourne about the end of the year. He is at present in India. Dr. Cumpston, who graduated at Melbourne University, was formerly connected with the Melbourne Hospital and the Parkville Asylum at Adelaide.

Dr. W. W. Ewbank, of Western Australia, has been elected a member of the Royal Colonial Institute.

Dr. C. W. Gunst, who is leaving Euroa, Victoria, was on November 21st entertained by a large circle of friends, who presented him with a gold Albert and sovereign case. Dr. Docker, of Portland, has succeeded to his practice.

Dr. Ventry Smith has returned to Grafton, N.S.W., from spending a holiday in England.

Dr. Archibald Macdonald, of Sale, Victoria, denies the accuracy of the report that he is about to retire from practice.

Dr. Pirie, the instructor of the Liverpool (N.S.W.) branch of the St. John Ambulance Association, was presented with a smoker's outfit by the members at the conclusion of the presentation of the certificates to those who had passed the recent examinations conducted by Dr. Brown, of Parramatta.

Dr. Goode, of Adelaide, has returned from a trip to New Zealand.

Dr. E. Tudor-Jones has returned to Annandale, Sydney, from a trip to England.

An enlarged photograph of the late Dr. John Webster Dunhill, who died on August 13th at Melbourne, has been presented to the school by the Daylesford (Vic.) State school board of advice and a number of other friends.

A fountain in memory of the late Dr. Ramsay was unveiled by the Mayor of Prahran on November 18th in the newly acquired public gardens, Malvern-road, Prahran, Victoria. Eulogistic references were made to the work of Dr. Ramsay. The fountain stands near the residence of the deceased doctor, and was erected by public subscription.

Dr. T. W. Faulkner, of Cooma, N.S.W., was publicly welcomed home lately, after completing a medical course at Edinburgh. The Mayor, on behalf of the residents, presented Dr. Faulkner with a silver-mounted ebony walking stick.

The president of the Professorial Board, Professor Baldwin Spencer, recently held a gathering at the Melbourne University to congratulate Professor Allen upon his 25 years' occupancy of the chair of pathology.

Dr. A. H. Bennett, of North Terrace, who has been on an extended holiday tour in New Zealand, has returned to Adelaide.

Dr. Herbert Shorney has obtained the degree of F.R.C.S. of England. Dr. Shorney proceeded to London 3½ years ago. He recently filled the positions of junior and senior house surgeon at the Throat Hospital, Golden-square, and will probably spend a little further time in London before returning to South Australia.

Dr. Sandison, who has left Port Lincoln, S.A., intends taking up a practice at Streaky Bay.

Dr. W. Camac Wilkinson has been granted leave of absence for six months by the directors of the Royal Prince Alfred Hospital, Sydney, to permit him to visit Europe in 1908.

Dr. Ralph Worrall has returned to Sydney from a trip to Europe.

Dr. B. L. Hart has removed from Howard, Queensland, to Gladstone, Queensland.

MEDICAL APPOINTMENTS.

VICTORIA.

The following persons to be Public Vaccinators for the districts set opposite their names, respectively, viz.:—

Naylor, Rupert George St. John, F.R.C.S., for South-eastern District, *vice* Thomas Stann, F.R.C.S., resigned.
Sleeman, James Henry, M.B., for South-western District, *vice* Wyatt B. Docker, M.B., resigned.

SOUTH AUSTRALIA.

Marshall, C. E., of Cowell, to be a Public Vaccinator.

WESTERN AUSTRALIA.

Chapman, H. O., to be Junior Resident Medical Officer at Perth Public Hospital.
Palmer, C. A. B., to be Resident Physician at the Coolgardie Hospital.

QUEENSLAND.

Hinrichsen, F., to be Honorary Visiting Surgeon to the Toowoomba Hospital, Queensland.

NEW ZEALAND.

The following persons to be Public Vaccinators for the districts set opposite their names respectively, viz. —

Thompson, Isaac, M.B., Ch.B., for the District of Christchurch.
Burnett, Leslie Burton, M.R.C.S., L.R.C.P., for the District of
Balclutha, *vice* Dr. Fleming, resigned.
Hood, James Crockett, M.D., for the District of Ootiki.

PROCEEDINGS OF AUSTRALASIAN MEDICAL
BOARDS.

*The following persons have been registered as Legally Qualified
Medical Practitioners in their respective States, viz. :—*

TASMANIA.

Bowman, Amos Walter, M.B. (Melb.), 1906, Ch.B. (Melb.), 1906.
Sweetnam, Herbert William, M.B. (Melb.), 1907, Ch.B. (Melb.)
1907.

SOUTH AUSTRALIA.

Sleeman, Benjamin, M.B., B.S. (Melb.), 1904.
Dunstone, Leonard John, M.B., B.S. (Glas.), 1907.
Wilbe, Ernest Edward, L.S.A. (Lond.), 1907.

NEW SOUTH WALES.

Chapman, Henry George, M.B., B.S., 1900; M.D. 1902 (Melb.),
M.B. (Adel.), *a.s.g.*, 1901.
Nairn, Archibald Balfour, L.R.C.P. (Edin.), 1900; L.R.C.S.
(Edin.), 1900; L.F.P.S. (Glas.), 1900.
Shepherd, Cyril, L.R.C.P. (Lond.), 1898; M.R.C.S. (Eng.), 1898.
Wallace, Robert, M.B., B.S. (Glasg.), 1905.

MEDICAL MEN who purpose applying for the position of Medical Officer of the Brisbane Amalgamated Friendly Societies' Medical Institute are invited before doing so to communicate with the Hon. Sec. of the Queensland Branch of the British Medical Association, Brisbane.

BIRTHS, MARRIAGES, AND DEATHS.

BIRTHS.

COOPER.—November 20th, at Kensington-road, Norwood, Adelaide, the wife of Dr. C. T. Cooper—a son.
DREW.—November 1st, at Kaniva, Victoria, to Dr. and Mrs. T. Mitchell Drew—a daughter.
HARRIS.—November 14th, at Beady-street, Armidale, the wife of Dr. Matthew H. Harris, of a daughter.
MULLER.—November 8th, at Meringa, Lismore, the wife of O. R. P. Muller, M.B., Ch.B.—a daughter.
MULLINS.—November 28th, at "Gorran," Point Piper, Sydney, the wife of George Lane Mullins, M.D.—a son.
STUCKEY.—November 30th, at Hsiao Chang, North China, the wife of E. J. Stuckey, M.B.—a daughter.

MARRIAGES.

AURICHT—VON BERTOUCHE.—October 24th, at St. John's Church, Tanunda, S.A., Theodor Auricht, M.B., Ch.B., Hahndorf, to Lucia, youngest daughter of the late S. von Bertouch, J.P., of Tanunda.
BARNETT—CRAGO.—November 12th, 1907, at St. Peter's, Woollahroo, Sydney, Marcus Stanley, youngest son of the late J. Knight Barnett, M.D., M.R.C.S., Upper Murray, Victoria, to Lillian, eldest daughter of W. H. Crago, M.R.C.S., L.R.C.P., College-street, Sydney.
CONOLLY—SHEPHERD SMITH.—November 14th, 1907, at St. John's Church, Darlinghurst, Sydney, by the Rev. E. C. Beck, A.K.C., Noel A. W. Conolly, M.R.C.S. (Eng.), L.R.C.P. (Lond.), youngest son of the late Wm. Conolly, of Goulburn, to Giltia, youngest daughter of the late Shepherd Smith, of Sydney.
STEWART—READ.—October 23rd, 1907, at Manilla, N.S.W., Robert Douglas, son of Robert Stewart, Aberdeen, N.S.W., to Muriel, eldest daughter of Dr. George Read, Watson's Bay, Sydney.

DEATHS.

ICK.—November 20th, at Claremont, Western Australia, Thomas Edwin, M.A., M.B., B.S. (Melb.), third son of the late Edward Edwin Ick, and beloved husband of Gertrude Ick.
ROBERTSON.—November 26th, at Torbanlea, Northgate-street, Unley Park, Margaret, wife of the late Dr. Robertson, Adelaide.

BOOKS RECEIVED.

Hygiene and Public Health. By L. C. Parkes, M.D., D.P.H., and H. R. Kenwood, M.B. (Edin.), D.P.H. Third edition, with illustrations. Pages, xi + 820; size, demy 8vo. London: H. K. Lewis, 136 Gower-street, W.C. Price, 10s 6d net.
Bloodstains: their Detection and the Determination of their Source. A manual for the medical and legal professions. By Major W. D. Sutherland, M.D. Number of pages, xii + 167; 20 plain and 10 coloured illustrations; demy 8vo. Price, 10s 6d net. London: Baillière, Tindall & Cox. Sydney: L. Bruck.
Preliminary Announcement of the International Congress on Tuberculosis, Sec. Gen. Dr. J. S. Fulton, 810 Colorado Building, Washington, D.C.
Tracheo-Bronchoscopy, Esophagoscopy and Gastroscopy. By Chevalier Jackson, M.D. The Laryngoscope Co., St. Louis, Mo.

The following four books have been received from Messrs. W. B. Saunders, of New York, per Mr. James Little, Bourke-street, Melbourne:

1. Practical Fever Nursing. By E. C. Register, M.D. Number of pages, 10 + 352. Illustrated. Price, 10s 6d.
2. Diseases of the Intestines and Peritoneum. By Prof. Dr. Hermann Nothnagel. Edited with additions by H. D. Rolleston, M.D., F.R.C.P. Second edition, revised. Number of pages, 13 + 1059. Price, 21s.
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